

13.3.1 Local Education Programmes on Climate

2023-2024

Education and awareness raising are powerful means with which to address climate change, global warming and the emission of greenhouse gases. Community-based climate risk, impact, adaptation, mitigation, and early warning programmes enhance climate literacy and help to reduce vulnerability, while empowering communities and students to participate in efforts to reduce emissions. It is the vision of the AASTMT to mainstream such programs within its institutional climate action.

MOU by AASTMT

The AASTMT Maritime Postgraduate Studies Institute signed an MOU with the Arab Institute of Navigation to offer no cost training courses in marine safety, first aid, and firefighting onboard ships as a means of fulfilling its social responsibility. This action contributes to climate adaptation and reduction of its effects by increasing the readiness and safety consciousness of USV operators in climate-related threats such as marine heatwaves, and emergencies at sea. The programme contributes to the target 13.3.1 through practical localized trainings that enhance early warning systems and resiliency in the maritime industry.



[AASTMT Maritime Postgraduate Studies Institute signed an MOU](#) on AASTMT webpage

Climate Change and Remote Sensing Applications for College Students 15 Aug, 2024

Training courses on climate change and remote sensing organized by the College of Fisheries & Aquaculture Technology, AASTMT this 3-day. This is directly a local education programme on climate risks, impacts, and adaptation. It includes Theoretical and practical lectures in remote sensing and climate change; fisheries & aquaculture applications; a field/research vessel visit. This training helps students understanding the climate risks and monitoring.

Thank God, the training course on climate change and remote sensing applications for college students was completed, which was held at the Institute's branch in Alexandria



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Participation of male and female students from the Faculty of Fisheries and Aquaculture Technology in the open day to introduce the academy's faculties

AUG 08, 2025

[AASTMT Climate Change and Remote Sensing Applications for College Students](#) on AASTMT webpage

Impacts of Climate Change on Achieving Sustainable Development Goals” Session

AASTMT took part in a session through the Vision 2030 Forum, lecturing on origins and signs of climate change, the implication of greenhouse gas emissions, and measures for mitigation and as early warning. The programme highlighted the connection between reducing carbon footprint and climate mitigation policy and adaptation, raising awareness and backing Egypt's path to a low-emission climate resilient future.





“مبادرة منظمات أهلية خضراء”

الحلقة النقاشية رقم 19

بعنوان

“تأثيرات التغيرات المناخية على تحقيق أهداف التنمية المستدامة”



أ.د. كريم طنبيل

رئيس اللجنة العلمية بالمجلس الأعلى للتخطيط والتنمية الاقتصادية

وتتناول الجلسة:

- دلائل وأسباب التغيرات المناخية.
- علاقة التغيرات المناخية بأهداف التنمية المستدامة.
- دور منظمات المجتمع المدني في مواجهة هذه التغيرات والحد منها

6:00 م

22 فبراير 2024

بالتعاون مع







[Impacts of Climate Change on Achieving Sustainable Development Goals” session](#) on AASTMT webpage

Arab Day for Disaster Risk Reduction 2024

The Arab Day for Disaster Risk Reduction 2024, held on 28 March 2024, the workshop organized under this celebration addressed disaster risk management, crisis response, climate-related threats, and resilience building — all core aspects of climate adaptation and early warning systems. The discussions and capacity-building sessions enhanced participant awareness of climate-induced disasters and promoted preparedness strategies



[Arab Day for Disaster Risk Reduction 2024](#) on AASTMT webpage

AASTMT at COP29 in Baku, Azerbaijan November 2024: Key Forum on Education, Climate Change & Human Capacity Building

AASTMT in collaboration with the League of Arab States, organized an international forum during COP29 focusing on the intersection of education, climate change, and sustainability. The event addressed the urgent global challenges of CO₂ emissions, global warming, and greenhouse gas mitigation, emphasizing the role of educational institutions in carbon reduction, climate adaptation, and environmental impact mitigation. Experts highlighted how research, innovation, and policy integration can enhance climate resilience, carbon footprint reduction.



[AASTMT at COP29 in Baku, Azerbaijan: Key Forum on Education, Climate Change & Human Capacity Building on facebook](#)

Climate Change and Water Management (UNR1601) Training

AASTMT organized an educational program titled “Climate Change and Water Management (UNR1601)” that focused on understanding the effects of climate change on water resources and sustainable development. The course aimed to enhance students’ awareness of climate-related challenges and adaptation strategies, with more than 200 participants engaged in the program.



[Climate Change and Water Management \(UNR1601\) Training on AASTMT webpage](#)

Green Peace and Sustainable Resilience Forum

The forum is an educational and awareness event where students participated in discussions about climate policy, green peace, sustainable resilience, and the role of media — all components of climate change education and public awareness. Students participated in sessions and discussions about climate policy, sustainable resilience, and green peace, which directly aim to raise awareness and build understanding of climate change risks, impacts, mitigation, and adaptation.



[Green Peace and Sustainable Resilience Forum](#) on AASTMT webpage

AASTMT Hosts Forum on Strategic Ocean Alliance to Tackle Climate Impacts on Marine Ecosystem

On December 9, 2023, AASTMT organized a forum titled “Strategic Ocean Alliance” at the League of Arab States pavilion, as part of Environment & Meteorology Day. The event brought together regional and international experts, civil society and private sector stakeholders to discuss climate adaptation and mitigation strategies for marine ecosystems. Topics included CO₂ emissions reduction, marine biodiversity protection, and advancing sustainable economic practices in maritime regions.



AASTMT Hosts Forum On Strategic Ocean Alliance To Tackle Climate Change Impacts On Marine Ecosystems

[AASTMT Hosts Forum on Strategic Ocean Alliance to Tackle Climate Impacts on Marine Ecosystem](#) on AASTMT webpage

Unigreen Projects Workshops

The Arab Academy for Science, Technology and Maritime Transport (AASTMT), in collaboration with the European Union, launched the UniGreen National Competition to encourage university students to develop innovative projects addressing climate change, carbon footprint reduction, and environmental sustainability. The initiative aims to build youth capacity in climate action, green innovation, and sustainable resource management, supporting Egypt's Vision 2030 and the UN Sustainable Development Goals (SDG 13 – Climate Action).



[Unigreen Project Workshops](#) on AASTMT webpage

SPEED Strategies for CaPacity building of hybrid Electric vehicle in Engineering Division

The SPEED project aims to build capacity in Hybrid Electric Vehicle (HEV) technologies through the development of new curricula, training programs, and the establishment of International Centers of Hybrid Electric Vehicle Technologies (HEV-T) in the Mediterranean region. Through postgraduate and undergraduate training, SPEED promotes energy efficiency, renewable energy integration, and GHG reduction, directly contributing to climate change mitigation and sustainable mobility.

SPEED

Strategies for caPacity building of hybrid Electric vehicle in Engineering Division

Start Date: 1 November 2024
Duration: 36 months



Institution Country:

1. Universitetet i Stavanger (UiS), Norway.
2. Ruhr-Universität Bochum (RUB), Germany.
3. Arab Academy For Science, Technology And Maritime Transport (AASTMT), Egypt.
4. Tanta University (TU), Egypt.
5. Palestine Ahliya University (PAU), Palestine.
6. Université De Gafsa (UDG), Tunisia.
7. Sfax University (USFAX), Tunisia.
8. Centre De Calcul El Khawarizmi (CCK), Tunisia.
9. An-Najah National University (ANNU), Palestine.

Total Budget: 399,982.05 €

The SPEED project objective is to develop/reform a new curriculum program in Hybrid Electric Vehicle, establishing International Centers of Hybrid Electric Vehicle Technologies (HEV-T) in the Mediterranean Countries (Region 3). The Centre will train Postgraduate (PG) and Undergraduate (UG) students on Hybrid Electric Vehicle methodologies and technologies for the different final users (in industries, and in transport) and will develop code of practice for the Efficient use of Energy in the Hybrid Electric Vehicle a joint collaboration between EU and Mediterranean Universities. The former will transfer EU best practices, experiences and methodologies according to the Bologna process to support the development and diffusion of an innovative experience in technical higher education in Mediterranean institutions supporting the capacity and knowledge building in Hybrid Electric Vehicle Technologies. The realization of Hybrid Electric Vehicle center will follow a scenario assessment taking into account of Mediterranean institutions sector needs and requirements, and EU best practices developed.

The SPEED project aims at establishing new modules on Hybrid Electric Vehicle and Rational Use of Energy based an innovative approach that includes the respect of both European and Extra European quality standards, the promotion of students and professor's mobility, the internationalization of education and training and the use of digital technologies in learning. SPEED project will train new PG and UG with an advanced level of education for the exercise of a highly qualified activity in Hybrid Electric Vehicle Technologies.

In the Mediterranean Area, the development of the Hybrid Electric Vehicle infrastructures is a key factor for the environmental protection and the socioeconomic development. High efficient Hybrid Electric Vehicle save resources and supports the energy roadmap 2050 economic case for decarbonization and serves meeting the 80-85% GHG reduction target by 2050, while promoting renewable, clean energy. The project will help in providing qualified professional resources capable of sustaining and managing the huge effort of Hybrid Electric Vehicle infrastructure development. Special emphasis will be given to advanced energy management. The project will be oriented to further development of the process of interaction with professional communities and reflects their requirements in the developed curriculum.

AASTMT Project Coordinator:
Prof. Yasser Gaber Dessouky

AASTMT Project Team Members:
Prof. Mostafa Abdelgelsil, Dr. Ahmed Abdelrahim



[Speed Strategies for CaPacity building of hybrid Electric vehicle in Engineering](#) on AASTMT webpage

GREEN Developing a curriculum on Green Hydrogen Technologies and Applications in Southern Mediterranean Countries

The GREEN project aims to develop a curriculum on Green Hydrogen Technologies and Applications in Southern Mediterranean Countries through collaboration between higher education institutions and industry partners. Green hydrogen, produced from renewable energy sources, plays a critical role in reducing greenhouse gas emissions, supporting clean mobility, and advancing climate-neutral energy systems.

GREEN

Developing a curriculum on Green Hydrogen Technologies and Applications in Southern Mediterranean Countries

Total Budget: 395,567 €
AASTMT Budget: 42,000 (10.84%)

Background: Green Hydrogen is a climate-neutral energy carrier that will be used for energy transportation in a future energy economy when it is produced from renewable sources. SMCs are in need of vocational programs focusing on Green Hydrogen and its applications in mobility and industry within higher education institutions.

Main Objective:

- Cooperation between companies and HEIs
- The courses will utilize new learning methods
- The ability to practice distance learning

Start Date: 1 January 2025
Duration: 36 months



Institution Country:

1. Universitaet Innsbruck (UIBK).
2. University Of Jordan (UJ).
3. Al-Hussein Bin Abdullah II Technical University (HTU).
4. Arab Academy For Science, Technology And Marit (AASTMT).
5. Helioptis University Association (HU).
6. Université Panafricaine Institut Des Sciences De L'air (PAUWES).
7. Université De Tlemcen (UABTT).
8. Technische Universität Hamburg (TUHH).
9. University Of Cyprus (UCY).

AASTMT Project Coordinator:
Prof. Mohamed Fahmy Shehadeh

AASTMT Project Team Members:
Prof. Aly Hassan Elbatran



[GREEN Developing a curriculum on Green Hydrogen Technologies and Applications](#) on AASTMT webpage

AASTMT Education Curriculum for Climate Action and Early Warning Systems (2024)

In 2024, AASTMT strengthened its commitment to SDG 13.3.1 through a range of educational programs and initiatives. The Meteorology Courses offered across AASTMT's maritime and fisheries colleges provide students with essential understanding of weather systems, climate variability, and extreme event forecasting key competencies for early warning preparedness. The MSc in Smart Environmental Management of Climate Change (SECCM) focuses on scientific and technological strategies for CO₂ reduction, climate risk monitoring, and adaptation planning, empowering graduates to implement effective climate action policies.

Meteorology Course At AASTMT: Building Capacity For Climate Risk Monitoring And Early Warning Systems

The Meteorology Course at AASTMT equips students with critical skills for monitoring climate risks and managing early warning systems. By covering climate change patterns, CO2 emissions, and extreme weather forecasting, the course supports local and regional governments in disaster preparedness and mitigation efforts. Graduates are trained to provide technical expertise for early warnings, enhancing community resilience and informing government strategies for climate-induced risks. This initiative underscores AASTMT's commitment to climate risk reduction and cooperative planning for climate resilience.

Code	Title	Prerequisites
BS214	Ship Handling and Emergency Proc.	BS213
BS235	Voyage Planning & Weather Routing	BS234
BS251	Cargo Handling	BS222
BS262	Navigational Aids	BA112N
BS263	Radar & ARPA	BA112N - BS132
BS273	Technical Report Writing	BS172
BS281	Maritime Meteorology	None
L204	Leadership IV	L203
P204	Physical Education IV	P203

Code	Title	Prerequisites
FN 121	Meteorology	-
FT 121	Fish Physiology	FT 101
FT 122	Statistics	BA 125
FT 123	Fisheries Science	-
U 152	English 2	U 151
BA 125	Mathematics 2	BA 125

[AASTMT Education Curriculum for Climate Action](#) on AASTMT webpage