



جامعة عجمان
AJMAN UNIVERSITY

20
24

SDG 13 CLIMATE ACTION

13.3 Environmental education measures

13.3.4 Inform and support government



THE GLOBAL GOALS

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Introduction

As climate change intensifies, the frequency and severity of natural disasters have increased significantly. To mitigate the impact of these disasters and protect vulnerable communities, effective early warning systems and monitoring mechanisms are essential.

Universities, as centers of knowledge and expertise, can play a vital role in supporting government efforts to develop and implement robust early warning systems. By conducting research, providing technical assistance, and disseminating information, universities can contribute to enhancing community resilience and safeguarding lives and livelihoods.

This report delves into the University's commitment to informing and supporting local or regional government in climate change disaster early warning and monitoring. By examining the University's contributions to disaster preparedness and response, we aim to assess its impact on the following areas:

- **Community Outreach and Education:** The University's efforts to educate and inform the public about climate change risks and disaster preparedness.
- **Policy and Decision-Making:** The University's role in providing evidence-based information to inform government policies and decision-making.

To evaluate the University's performance, we will focus on the following key indicator:

- **Inform and support local or regional government (13.3.4):** This indicator assesses the University's involvement in providing information and support to government agencies in the areas of early warning systems, risk assessment, and disaster response planning.

By analyzing this indicator, we can gain valuable insights into the University's role in enhancing community resilience and safeguarding lives and livelihoods.

Message from the Senior Sustainability Manager

Climate change poses significant risks to our communities, and effective early warning systems are essential to mitigating these threats.

Our University is committed to supporting local and regional governments in their efforts to build resilience and protect vulnerable populations.

By sharing our expertise and resources, we are working to:

- **Provide Data-Driven Insights:** Conducting research and analysis to inform decision-making and identify potential risks.
- **Educate and Empower Communities:** Raising awareness about climate change impacts and promoting disaster preparedness.
- **Foster Partnerships:** Working with local and regional stakeholders to develop collaborative solutions.

Through these efforts, we aim to contribute to a safer and more resilient future for all.



**We are dedicated
to leading by
example in
climate action**

MAYA HADDAD
SENIOR SUSTAINABILITY MANAGER

13.3.4 Inform and support government



Ajman University is at the forefront of securing a sustainable future for generations to come, actively collaborating with government authorities to combat the urgent threat of climate change. The University has partnered with key organizations such as the UAE Ministry of Climate Change and Environment (MOCCAEX), Environment Agency- Abu Dhabi, Ajman Municipality, Environment Centre for Arab Towns by Dubai Municipality, COP28 Presidency, and Emirates Municipal Environmental Council to develop a holistic approach to climate action.

Through these collaborations, Ajman University's experts are playing a crucial role in informing government strategies and providing the tools needed to address the multifaceted challenges of a changing climate. They are supporting the UAE's efforts to build resilience, promote sustainable development, and ensure a thriving future for all. By sharing their knowledge and research, they are helping to shape policies that not only mitigate the impacts of climate change but also foster innovation, economic growth, and social equity.

From developing renewable energy solutions to creating climate-resilient infrastructure, from advancing sustainable agriculture practices to promoting eco-friendly urban planning, Ajman University is at the heart of the UAE's climate action efforts. Through education, research, and community engagement, the University is empowering the next generation of leaders to tackle the climate crisis head-on and build a sustainable world for all.

Ministry of Climate Change and Environment

Ajman University stands at the forefront of the UAE's fight against climate change. Deeply committed to a sustainable future for generations to come, the university actively supports the nation's ambitious Net Zero 2050 strategy, aligned with the Paris Agreement.

Leading by Example:

Since 2022, Ajman University representatives have actively participated in shaping the UAE's climate adaptation framework. Their contributions span academic consultations, workshops, meetings, and discussions, demonstrating the university's dedication to tackling this critical challenge.

The UAE's Role on the Global Stage:

The UAE has emerged as a regional leader in addressing climate change. They were among the first MENA countries to endorse the Paris Agreement and have launched several initiatives to combat climate threats.

A Crucial Turning Point:

The UNFCCC COP28 conference that was in November–December 2023 served as a pivotal moment to showcase global progress under the Paris Agreement. The UAE's hosting role, alongside the first Global Stocktake, presents a unique opportunity to solidify the nation's leadership in climate action.

National Adaptation Plan: A Roadmap for Resilience

The UAE's National Adaptation Plan (NAP) is anticipated to be a significant milestone in this fight. This comprehensive plan aims to integrate climate resilience strategies across the federal government. By identifying vulnerabilities across the seven emirates, the NAP will pave the way for a more resilient UAE prepared to face future climate risks.

<https://sustainablecampus.ajman.ac.ae/en/partnerships/ministry-of-climate-change-and-environment>

The screenshot shows a Microsoft Teams meeting in progress. The main display area is a presentation slide titled "Development of the UAE NAP: Inception Workshop". The slide content includes:

- Workshop Details:**
 - 17th and 18th May 2023
 - Zayed University, Dubai Campus
 - MOCCA and GGGI
- Aim:**
 - To create awareness and build capacity of potential key stakeholders; support the exercise towards setting the "Adaptation Vision" and identify additional priority sectors for inclusion in developing the UAE NAP.
- Objectives:**
 - Present the key takeaways from prior consultations across sectors and actors, as well as identify and initiate the exercise to establish the NAP stakeholders and their pivotal role in developing a robust NAP.
 - Discuss, validate, and establish a shared "NAP Vision" across UAE's key stakeholders.
 - Identify the "what, who, and how" of the NAP. Validating what the scope of the NAP should be, who should be involved, and how it should be developed.
 - Identify additional priority sectors for inclusion in the NAP's Vulnerability and Risk Assessments.
 - Raise awareness among stakeholders of the NAP and the NAP process.
 - Launch the NAP development process.

The right sidebar shows a "Meeting chat" window with a message from "Has..." dated 10/25/2023, 10:23 AM, asking "what climate scenarios is the NAP targeting?". Below the chat is a text input field "Type a message...". The bottom of the interface shows a video feed of a participant named "Shivenes Shammugam (External)".

Ajman University: A Key Partner with the Ministry of Climate Change and Environment in Informing the UAE's Climate Adaptation Strategy

Ajman University has firmly positioned itself as a vital contributor to the United Arab Emirates' national sustainability agenda. The university is committed not only to participating in initiatives but to actively shaping them, ensuring a resilient and sustainable future for the next generation. A core component of this mission involves providing direct academic and research-based support to the government's strategic planning efforts, particularly in the complex field of climate adaptation.

In alignment with the UAE's strategic Net Zero 2050 initiative and the Paris Agreement, Ajman University serves as a crucial knowledge partner. Since 2022, the university's representatives have been actively engaged in a series of academic consultations, workshops, and high-level discussions focused on the UAE's climate adaptation framework. This is not merely passive attendance; it is an active process of informing and supporting the government by translating cutting-edge research, empirical data, and academic expertise into actionable policy recommendations. The university's role is to help bridge the gap between theoretical knowledge and practical implementation, ensuring that the nation's plans are robust, evidence-based, and effective.

The UAE has emerged as a regional leader in this arena, being one of the first MENA nations to support the Paris Agreement. Its leadership will be on full display as it hosts the UNFCCC COP28 in November-December 2023, a pivotal event featuring the first Global Stocktake to assess collective progress under the agreement.

Central to the UAE's strategy is its National Adaptation Plan (NAP). The NAP is designed to be the nation's next significant step in proving its leadership against climate change, integrating climate resilience across the Federal Government and identifying vulnerabilities across all seven emirates. It is precisely within the development of this critical plan that Ajman University's contributions are most impactful. By participating in the consultations for the NAP, the university provides essential insights that help the government identify sector-specific risks—from water security and agriculture to public health and infrastructure—and develop targeted adaptation measures. This collaborative partnership ensures that the UAE's climate adaptation planning is not only comprehensive but also grounded in the latest scientific and academic understanding, ultimately creating a more resilient nation.

<https://ehs.ajman.ac.ae/en/pages/au-climate-action-learning-program>

Environment Agency - Abu Dhabi: Sustainable Campus Initiative

The UAE recognizes the power of its young minds. The Sustainable Campus Initiative (SCI), launched by the Environment Agency – Abu Dhabi and sponsored by Borouge, capitalizes on this potential by fostering environmental leadership among university and college students aged 18-35, including those at Ajman University.

This impactful program equips future changemakers with the knowledge and tools they need to address sustainability challenges. Through participation, students gain valuable experience in:

- Green Campus Audits (GCA): Evaluating their institutions' environmental footprint.
- Sustainability Action Projects (SAP): Developing and implementing innovative solutions to reduce environmental impact.
- Green Youth Majlis (GYM): Connecting with peers, sharing best practices, and advocating for change.

SCI's multifaceted approach delivers a range of benefits:

- Mobilizes youth: Inspires students to become active participants in building a sustainable future.
- Networking opportunities: Connects students with local, regional, and international sustainability networks.
- Empowering future leaders: Provides students at Ajman University and other institutions with the skills and confidence to drive positive change.
- Engages educators and mentors: Creates learning opportunities for both students and faculty.
- Promotes action-oriented learning: Encourages students to translate knowledge into practical solutions.

By nurturing young environmental stewards, the SCI empowers the UAE's future generations to build a thriving and sustainable society, with active participation from Ajman University.

<https://sustainablecampus.ajman.ac.ae/en/partnerships/sustainable-campus-initiative-with-ead>

<https://www.ead.gov.ae/en/About-Us>

<https://sustainablecampus.ead.ae/sis/sciWebsite/web/site/campuses>



Ajman Municipality & Planning Department

The MOU between the parties was signed to share events, activities, conferences, and lectures organized or sponsored by both parties. These events align with the UAE strategy for aligning the sustainability and Climate action in the country's infrastructure development. AU Innovation Centre has been conducting joint operation events with new innovative business ideas that bring sustainability to the region. In addition to research collaborations between the College of Architecture, Art and Design and environmental initiatives with the Office of Sustainability and Community Engagement Unit.

<https://www.ajman.ac.ae/en/mou/municipality-planning-department>



Emirates Municipal Environmental Council

Ajman University plays a vital role in sharing their climate action plan by contributing to several teams that report to the Emirates Municipal Environmental Council. This council, established by the Ministry of Climate Change, coordinates environmental initiatives across municipalities in the United Arab Emirates. Here's a closer look at the specific teams where Ajman University's expertise contributes:

- **Environmental and Municipal Studies and Research Team:** This team focuses on conducting research and studies related to environmental issues and challenges faced by municipalities. They might analyze data on pollution levels, sustainable practices, or waste management. Their research would inform policy decisions and guide municipalities towards a more sustainable future. Ajman University's faculty and students can contribute valuable research skills and knowledge in areas like environmental science, engineering, and urban planning.
- **Education and Awareness Team:** This team aims to educate the public and raise awareness about environmental issues and sustainable practices. They might develop educational materials, organize workshops, or run social media campaigns. Ajman University can provide expertise in curriculum development, public outreach strategies, and communication to empower individuals to make environmentally conscious choices.

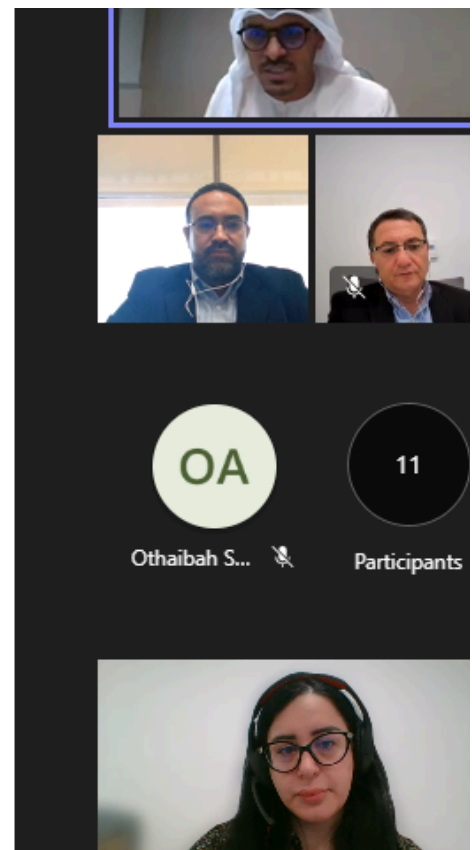
- **Regional and International Positions and Participation Team:** This team represents the organization in regional and international forums related to the environment and municipal development. They might participate in conferences, negotiate agreements, or collaborate with other organizations on international environmental initiatives. Ajman University's faculty members can lend their academic background and research experience to these international discussions.
- **Policies and Legislation Team:** This team develops and advocates for policies and legislation that promote environmental protection and sustainable development within municipalities. They might conduct legal research, draft policy proposals, and lobby for their adoption by local governments. Ajman University's legal scholars and social science experts can provide valuable insights on environmental law and policy development.
- **Transformational Projects Team:** This team focuses on identifying, developing, and implementing innovative projects that address major environmental challenges or promote significant improvements in municipal services. Their projects could involve renewable energy initiatives, green infrastructure development, or waste-to-resource programs. Ajman University's researchers and engineers can play a crucial role in developing and implementing these transformative projects.

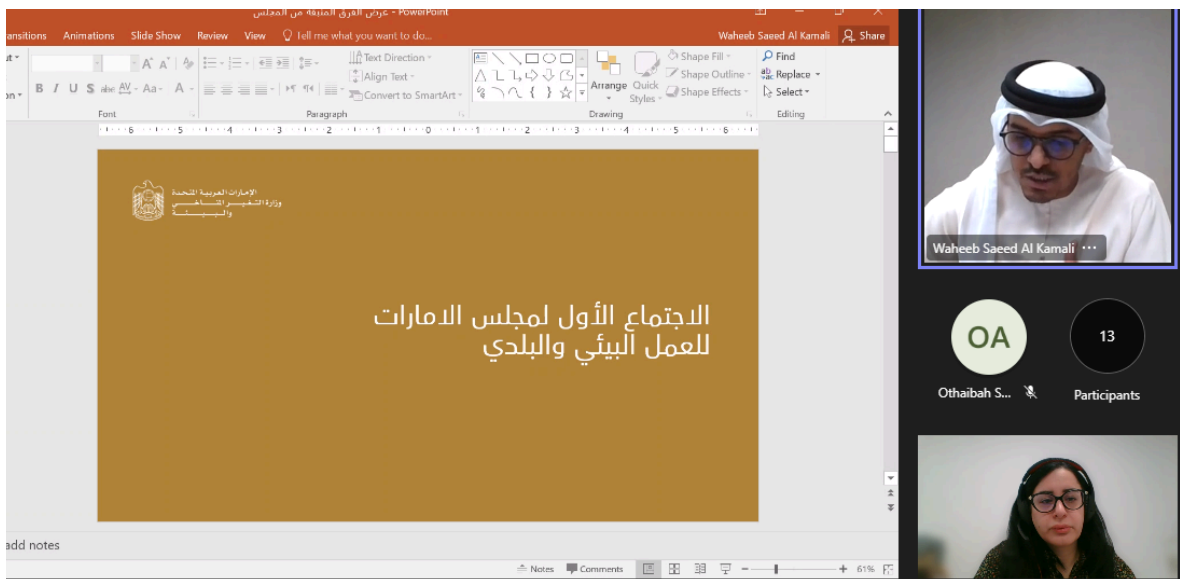
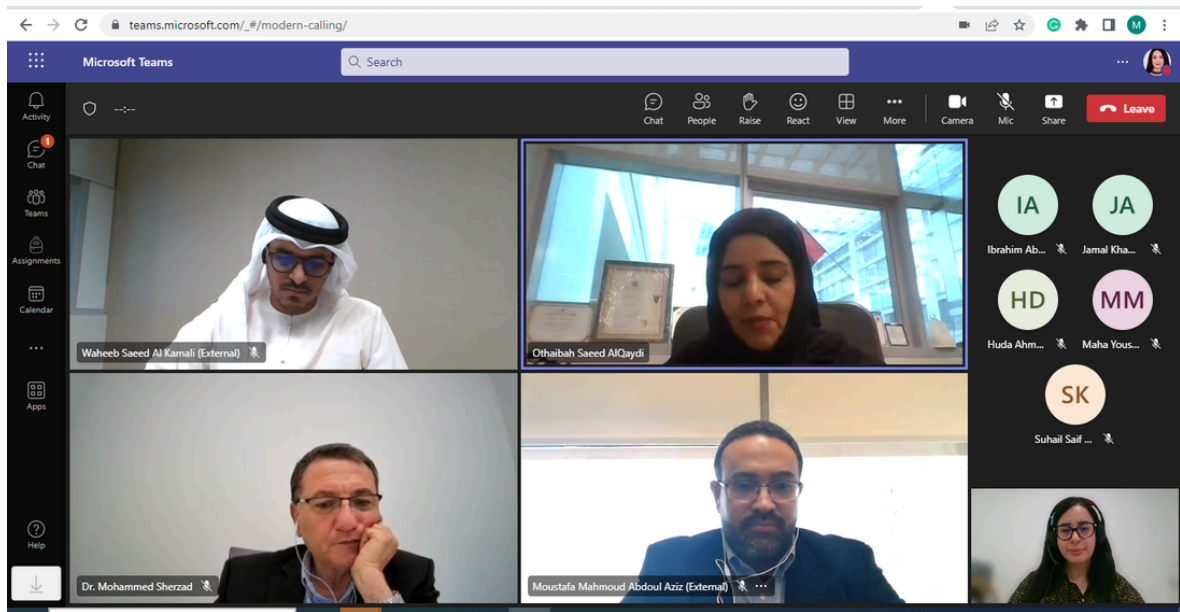
By contributing to these critical teams, Ajman University demonstrates its commitment to environmental progress and a sustainable future for the United Arab Emirates.

<https://sustainablecampus.ajman.ac.ae/en/partnerships/emirates-municipal-environmental-council>

أعضاء مجلس الإمارات للعمل البيئي والبلدي

<p>سعادة الدكتور حسب</p> <p>وكيل الوزارة المساعد وزارة الصحة ووقاية</p> 	<p>معالي مريم بنت محمد سعيد حارب الموهبي</p> <p>وزيرة التغير المناخي والبيئة رئيس مجلس الإمارات للعمل البيئي والبلدي</p> 
<p>سعادة عبدالله ساد</p> <p>وكيل الوزارة المساعد وزارة الصناعة والتكنو</p> 	<p>سعادة الدكتورة آمنه الضحاك الشامسي</p> <p>وكيل الوزارة المساعد لقطاع الرعاية و وبناء القدرات وزارة التربية والتعليم</p> 
<p>سعادة علي خليفة ا</p> <p>مدير بلدية مدينة العر إمارة أبوظبي</p> 	<p>سعادة المهندس عيسى الهاشمي</p> <p>وكيل الوزارة المساعد لقطاع المجتمعات المستدامة وزارة التغير المناخي والبيئة</p> 
<p>سعادة الدكتور سلع</p> <p>رئيس دائرة شؤون ال إمارة الشارقة</p> 	<p>سعادة الدكتور المهندس خليفة مصبح الطنيجي</p> <p>رئيس دائرة شؤون الزراعة والثروة الحيوانية إمارة الشارقة</p> 
<p>سعادة محمد سيف</p> <p>مدير عام بلدية الفجيرة إمارة الفجيرة</p> 	<p>سعادة منذر بن شكر الزعابي</p> <p>مدير عام دائرة البلدية إمارة رأس الخيمة</p> 





Environmental Center for Arab Towns (ECAT)


Founded in 2005 by the Arab Town Organization (ATO), the Environmental Center for Arab Towns (ECAT) currently runs under Dubai Municipality and serves as a vital hub for environmental collaboration in the Arab world. Led by H.E. Dawood Al Hajri, ECAT tackles critical environmental challenges and promotes sustainable development across Arab cities and towns.

ECAT boasts a robust network of 50 Arab cities and 138 Arab experts, including Ms. Maya Haddad, Sustainability Manager at Ajman University. This diverse network fosters communication and collaboration, breaking down barriers and allowing urban centers to learn from each other's experiences.

Recognizing the importance of knowledge in achieving sustainability, ECAT facilitates the exchange of critical environmental expertise through conferences and discussion forums. They are also developing a comprehensive knowledge-sharing platform – a valuable resource for researchers, decision-makers, and the general public. This platform will ensure widespread access to vital information, empowering positive environmental action.

ECAT understands the importance of cultivating environmental awareness from a young age. Their Green Ambassador Programme, open to students from Grades 6 to 12, equips young people with the knowledge and skills necessary to become environmental stewards. By fostering a generation of eco-conscious individuals, ECAT paves the way for a greener future for Arab cities.

<https://sustainablecampus.ajman.ac.ae/en/partnerships/environment-center-for-arab-towns-ecat>



Upload Profile Picture

Maya Haddad

Sustainability Manager

Organization

Ajman University

Qualification

Master's Degree

Year of Experience

10 - 15 Years

About Me

Climate Action, Social Impact, Awareness, Sustainability

Nationality

Lebanon

City

Ajman

Email Address

mayag.haddad@gmail.com

Contact No.

0527572696

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2	Sustainable Living for kids	16-01-2023

Showing 1 to 2 of 2 entries

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1	AU Climate Change and Sustainability Strategy	16-01-2023
2	Sustainable Living for kids	16-01-2023

Showing 1 to 2 of 2 entries

AU co-leads the UAE Universities Climate Network

The UAE's Universities Climate Network (UCN), a 35-member group, has announced the appointment of Khalifa University's Dr. Samuel Mao and Dr. Rasha Bayoumi of the University of Birmingham Dubai as Co-Chairs and Ajman University's Maya Haddad as Head of Operations, taking the UCN to the next stage of advancing climate action regionally and internationally, and promoting sustainability across the UAE's academic sector.

An official handover ceremony organized at New York University Abu Dhabi (NYUAD) was attended by His Excellency Edward Hobart, the UK Ambassador to the UAE, His Excellency Ambassador Majid Al-Suwaidi, Director-General, COP28 UAE Presidency, Professor Sir John O'Reilly, President, Khalifa University, and other key stakeholders.

Her Excellency Razan Al Mubarak, UN Climate Change High-Level Champion for COP28, said: "Universities play an integral role in supporting climate action. They provide the research, education and expertise to respond to the climate challenge, developing the solutions and capacity to reduce emissions and address the adaptation gap. With the appointments of Dr Samuel Mao, Dr Rasha Bayoumi and Ms Maya Haddad in the UAE, I am delighted that UCN are building on their success at COP28 to take forward this agenda across the MENA region."

The UAE Universities Climate Network (UCN) is a powerful alliance of 35 universities across the Emirates. We stand united in the fight against climate change, empowering young minds to become the next generation of environmental leaders.

This network was formed to unify the voices of UAE universities, showcasing the crucial role of higher education in tackling climate change. Its lasting impact extends beyond COP28. The network's strategy rests on four pillars for thought leadership and action:

- Student Youth Engagement Pillar:

Empowering Youth Climate Leaders: Igniting a global movement of student climate action by empowering young leaders from the UAE and worldwide.

- Research & Innovation Pillar:

Fueling Innovation and Solutions: Disseminating climate research and analysis, providing policymakers with actionable recommendations to accelerate climate solutions.

- Communal Activations Pillar:

Engaging Communities with Action: Activating university campuses and stakeholders to broaden public engagement on climate change through evidence-based initiatives.

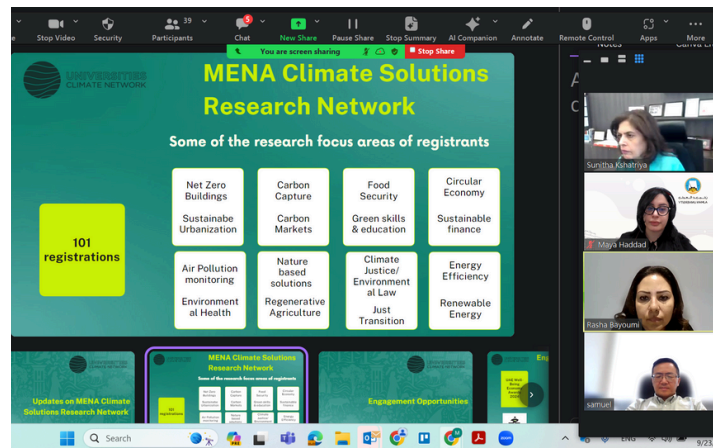
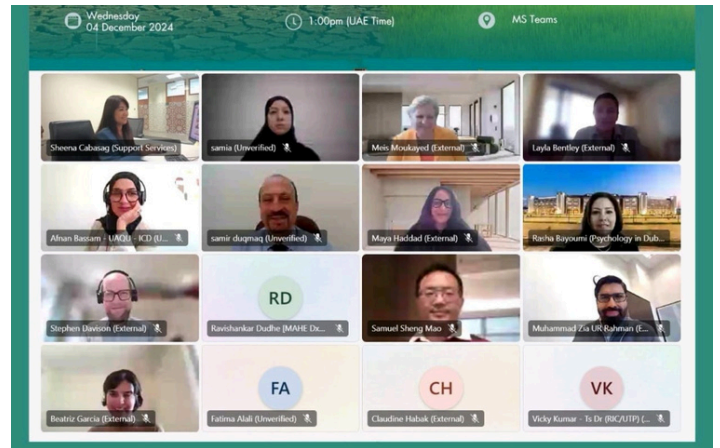
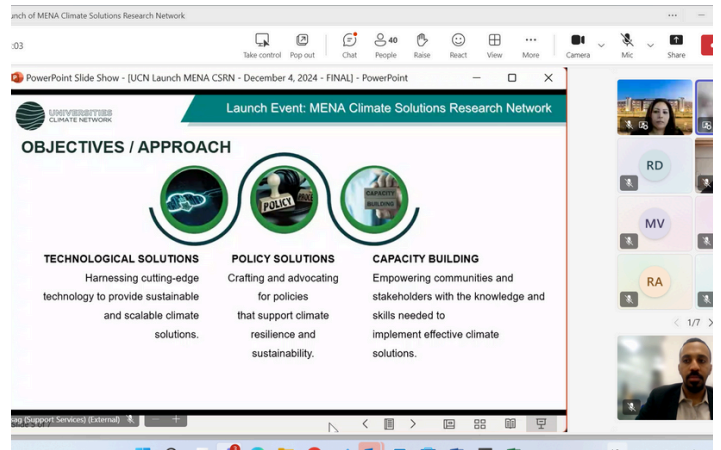
- Campus Carbon Neutrality Pillar:

Leading by Example: Pioneering Carbon Neutrality: Spearhead university decarbonization plans, aligning with the UAE's ambitious 2050 Net Zero strategy.

The UCN offers a variety of opportunities to get involved, from participating in research projects and workshops to attending conferences and events. Whether you're a student, faculty member, or community leader, there's a place for you in our network.

Together, we can create a more sustainable future for the UAE and the world.

<https://sustainablecampus.ajman.ac.ae/en/highlights/au-co-leads-the-uae-universities-climate-network>



UCN MENA Climate Solutions Research Network

The MENA Climate Solutions Research Network was established by the UAE Universities Climate Network (UCN) to tackle critical climate challenges within the MENA region by implementing solutions aligned with the "2030 Climate Solutions - Implementation Roadmap." The UAE Universities Climate Network (UCN) is currently led by Khalifa University, the University of Birmingham Dubai, and Ajman University. This roadmap, launched at COP28, identifies several thematic priorities: Energy, Transport, Industry, Land Use, Oceans & Coastal Zones, Water, Human Settlement and Finance. Our network is dedicated to addressing these areas through a multidisciplinary approach, encompassing technological innovations, policy frameworks, and capacity-building efforts.

Focus Areas:

1. Energy: Accelerate the shift to clean energy, aiming to triple renewable capacity by 2030 while doubling energy efficiency.
2. Transport: Continue electrifying all land transport modes and shift global aviation and maritime shipping to sustainable, zero-emission fuels.
3. Industry: Encourage breakthroughs in clean energy and zero-carbon products.
4. Land Use: Implement sustainable agricultural practices, involve marginalized groups in nature management, utilize nature-based solutions, and shift to nature-friendly farming.
5. Ocean & Coastal Zones: Implement science-based emissions reduction targets, build coastal communities' resilience, and restore marine ecosystems.
6. Water: Address the water crisis, improve water management collaboratively, and integrate water system improvements for resilience and sustainable development.
7. Human Settlements: Drive climate action in cities, aim for near-zero emissions in new buildings and collaborate for sustainable, low-emission, and resilient development.
8. Finance: Mobilize finance and catalyze investment into climate adaptation and resilience for economic imperative.

Approach

- Technological Solutions: Harnessing cutting-edge technology to provide sustainable and scalable climate solutions.
- Policy Solutions: Crafting and advocating for policies that support climate resilience and sustainability.

Capacity Building: Empowering communities and stakeholders with the knowledge and skills needed to implement effective climate solutions.

To learn more about the network, click [here](#).

<https://sustainablecampus.ajman.ac.ae/en/au-launches-the-mena-climate-solutions-research-network-along-with-ucn>

Events to support Climate Change Initiatives by UAE government organizations

Ajman University Students Participate in the 24th Inter-College Environmental Public Speaking Competition



Ajman University students took part in the 24th edition of the Inter-College Environmental Public Speaking Competition, organized by the Emirates Environmental Group (EEG) from November 25 to 28, and hosted by Higher Colleges of Technology – Dubai. This competition serves as a leading educational platform aimed at enhancing youth awareness of environmental sustainability issues, as well as developing their critical thinking, collaboration, and problem-solving skills to address environmental challenges.

A team from the College of Architecture, Art, and Design, along with the College of Engineering and Information Technology, represented Ajman University in the competition. They presented an innovative and sustainable solution under the theme: "Green Innovation: Visions for the Cities of Tomorrow", competing against teams from various universities across the Middle East and North Africa (MENA) region. Additionally, a team from the College of Dentistry participated by presenting a project under the theme: "Preserving Ocean Balance: Understanding Planetary Security", which highlighted the role of oceans in enhancing environmental security and mitigating climate change.

The participating students highlighted that the competition offered a valuable opportunity to enhance their analytical skills, present ideas on a prestigious platform, and engage with global environmental experts. They also appreciated the event's role in promoting environmental innovation and encouraging practical, sustainable solutions for a better future.

For the 2024 edition, EEG established four key themes that address pressing environmental issues:

- Green Innovation: Visions for the Cities of Tomorrow
- Eco-Journeys: Planning for Sustainable Tourism
- Harmonious Communities: The Path to Climate Awareness
- Preserving Ocean Balance: Understanding Planetary Security

The competition witnessed extensive participation, with over 534 students competing in 89 teams from 16 countries, representing various universities across the MENA region.

Ajman University is dedicated to fostering an educational environment that nurtures innovation and sustainability. It actively involves students in competitive platforms where they can analyze environmental issues and propose research-driven, creative solutions. The University also emphasizes the importance of environmental responsibility, creating opportunities for collaboration with sustainability experts and institutions, and empowering students as future leaders in environmental protection and sustainable development.

<https://www.ajman.ac.ae/en/news/2024/ajman-university-students-participate-in-the-24th-inter-college-environmental-public-speaking-competition>

<https://sustainablecampus.ajman.ac.ae/en/gallery/the-23rd-cycle-of-the-inter-college-environmental-public-speaking-competition>



Ajman University's Office of Sustainability Participates in Clean UAE 2024



As part of its commitment to promoting environmental sustainability and fostering community engagement, Ajman University Community members and students, along with their families, participated in the 23rd edition of the "Clean UAE" campaign. Organized by the Emirates Environmental Group under the patronage of the Ministry of Climate Change and Environment, this initiative reflects the University's dedication to raising environmental awareness among students and the broader community while encouraging the adoption of eco-friendly practices that contribute to preserving natural resources and achieving sustainable development.

Ajman University's participation in this campaign underscores its sustainable approach and commitment to educating students on the importance of environmental conservation and active involvement in meaningful community initiatives. Through this event, students and their families had the opportunity to interact with experts and volunteers from various organizations, gain insights into waste-related challenges, and understand their impact on ecosystems. Additionally, the campaign instilled values of teamwork, volunteerism, and social responsibility among participants, reinforcing their role in building a more sustainable future.

The "Clean UAE" campaign is one of the UAE's leading environmental initiatives. Held from December 5 to 14, 2024, the campaign aimed to enhance environmental awareness and reinforce the concept of social responsibility. It brought together diverse community members to help clean natural areas and responsibly dispose of waste, contributing to environmental preservation and sustainability.

This year's campaign saw participation from various sectors, with 83,123 volunteers from educational institutions, government entities, businesses, and families. Their collective efforts led to the collection of 43,441 kilograms of waste and the cleaning of 95.5 square kilometers of land nationwide, showcasing their dedication to sustainable environmental practices.

Participants from the University described the campaign as an inspiring experience that increased their awareness of the environmental impact of waste and motivated them to adopt sustainable habits, such as reducing plastic consumption, recycling, and participating in other environmental initiatives. They also expressed gratitude for the organizational efforts that ensured the campaign's success, commending the Ajman University Office of Sustainability for offering valuable opportunities for active involvement in environmental activities and boosting their ecological awareness.

<https://sustainablecampus.ajman.ac.ae/en/news/2024/ajman-university-community-members-and-students-participate-in-the-clean-uae-2024-campaign-to-promote-environmental-sustainability>

<https://sustainablecampus.ajman.ac.ae/en/gallery/clean-uae-2024>



The Office of Sustainability Collaborates with Goumbook and Abdulla Al Ghurair Foundation on Greening Communities Initiative



In line with the UAE strategic initiative to achieve climate neutrality by 2050, The Office of Sustainability, in collaboration with the Goumbook and the Abdullah Al Ghurair Foundation, organized an awareness event as part of the Greening Communities Initiative by the Ministry of Education. Around 70 participants took part in the event, planting approximately 75 mangrove trees. The event emphasized the crucial role of mangrove trees in ecological balance and air quality improvement. It highlighted their ability to absorb greenhouse gases and store carbon. Additionally, it underscored their significance in coastal ecosystems, serving as habitats for marine organisms like fish, crustaceans, and birds. This also serves as part of the University's biodiversity targets as a founding member of the Nature Positive Alliance along with the University of Oxford and UNEP.

The event boosted environmental awareness and encouraged responsibility towards nature. Attendees were inspired to take concrete conservation actions. They also enjoyed kayaking through scenic waterways, surrounded by lush greenery and vibrant marine life thriving among the mangrove roots.

The Office of Sustainability is dedicated to implementing environmental initiatives to address climate challenges and raise awareness about preserving the environment. Through collaboration with local and global partners, it aims to reduce emissions and promote sustainability across sectors, supporting sustainable development and environmental conservation for present and future generations.

<https://www.ajman.ac.ae/en/news/2024/the-office-of-sustainability-collaborates-with-goumbook-and-abdulla-al-ghurair-foundation-on-greening-communities-initiative>

<https://sustainablecampus.ajman.ac.ae/en/gallery/mangrove-planting-project>



Ajman University and Al Zorah Golf Club, affiliated with Al Zorah Development Private Company, Launch Mangrove Planting and Golf Tour Initiative



Ajman University in collaboration with Al Zorah Golf Club, launched the "Mangrove Planting and Golf Tour" initiative at Al Zorah Golf Club in Ajman. This initiative aligns with the UAE's ambitious goal to plant 100 million mangrove trees by 2030, Al Zorah City's pledge to double the existing mangrove forest in the Al Zorah Natural reserve area to 2.4 million trees and is a testament to the University's dedication to its 2022-2030 climate and sustainability strategy.

The initiative, which kicked off on January 16th, 2024 and will span 13 weeks has drawn enthusiastic participation not only from within the University but also from schools and other external groups. More than 70 individuals have so far actively participated and contributed to the aim of planting around 1,000 mangrove trees. This endeavor reflects the community members' commitment to environmental stewardship and social responsibility.

The primary objective of this initiative is the restoration of mangrove ecosystems, crucial for mitigating the impacts of climate change. These trees play a vital role in maintaining ecological balance and enhancing sustainability by supporting biodiversity, protecting coastlines from erosion, providing critical habitat for fish and other marine life and absorbing significant amounts of carbon dioxide, thus offering a natural solution to climate challenges.

Dr. Karim Seghir, Chancellor of Ajman University, emphasized the alignment of the planting mangrove initiative with the UAE's strategy to achieve climate neutrality by 2050. He commended the Office of Sustainability for establishing effective partnerships with various entities and sectors. Additionally, he underscored the importance of collaborating with Al Zorah Development Private Company to achieve the university's environmental goals. Dr. Seghir highlighted the significance of community efforts in environmental protection and the role of universities in promoting scientific research and innovation in the field of sustainability.

In addition, Mr. Stephen Payne, Golf Operation Manager of Al Zorah Golf Club in Ajman has stated "As part of our outreach and education module to become Audubon Golf certified, one of our tasks is to engage with the local community members. We are delighted to find an amazing opportunity to collaborate with Ajman University in sustainability efforts.



The collaboration will see students come to the Golf Club every Tuesday over a four-month period, in these sessions, an educational 30 minutes is held at the planting site location followed by the student planting between 50-75 mangroves each week. This project will see over 1,000 baby mangroves planted in sustainability efforts which is a fantastic feat.

We are also excited to be hosting a mangrove clean-up in February with the University featuring a 45-minute learning seminar followed by all participants heading to the mangroves and collecting all the disposed waste and litter for a healthier eco system.

We have to thank our Club Partner Quest for Adventure who have made this collaboration possible with the supply of the baby mangroves each week. Without this, this wouldn't have been possible. We look forward to continuing to work with Ajman University on many more projects in the future.'

Quest for Adventure plays an effective role in supporting this initiative, contributing to the supply of 1,000 baby mangrove trees to be planted at the golf club. This reflects its continuous efforts in enhancing climate change mitigation and achieving environmental sustainability. Brian Parry, Head of Community Development at Quest for Adventure, commented that initiative's like this are precisely why Quest operates a mangrove tree growing Nursery as part of the Al Zorah City sustainability plan for doubling the size of the existing mangrove forest. The Mangrove Nursery is supported by Ajman municipality and the Ministry of Climate Change and corporate sponsors to enable community action and environmental education programmes that contribute to the UAE commitment to combat climate change.

Through partnerships with key stakeholders, the Office of Sustainability, in collaboration with the Office of Community Engagement at Ajman University, drives innovative initiatives to raise environmental awareness and achieve measurable impact on conservation, social responsibility and sustainability practices at Ajman University.

<https://www.ajman.ac.ae/en/news/2024/ajman-university-and-al-zorah-golf-club-affiliated-with-al-zorah-development-private-company-launch-mangrove-planting-and-golf-tour-initiative>

<https://www.ajman.ac.ae/en/it/events/greening-communities-mangrove-ecosystem-restoration>

<https://sustainablecampus.ajman.ac.ae/en/gallery/mangrove-planting-project>



The Office of Sustainability Celebrates World Environment Day in Collaboration with Al Zorah Golf Club



The Office of Sustainability at Ajman University, in collaboration with Al Zorah Golf Club, organized an event to celebrate World Environment Day, aiming to raise awareness about the importance of environmental conservation and natural resources. This year's World Environment Day slogan, "Land restoration, desertification, and drought resilience," underscored the focus on environmental challenges. The event commenced with a presentation by Mr. Brian Parry, Head of Community Development at Quest for Adventure, highlighting the vital role of mangrove trees in the environment and their significance in climate change mitigation. Mr. Parry provided comprehensive information on these crucial trees and emphasized the importance of building resilience to environmental challenges, such as drought, as part of conservation efforts and sustainability enhancement.

He also shed light on ongoing efforts to plant mangrove trees in the Al Zorah area, aligning with the UAE's goal to plant 100 million trees by 2030 to achieve climate neutrality by 2050. Additionally, Mr. Stephen Payne, Golf Operations Manager of Al Zorah Golf Club in Ajman, briefed participants on necessary safety instructions and procedures during the event.

Thirty-five participants from Ajman University successfully planted 200 mangrove trees during the event. This initiative contributed to soil preservation, coastal erosion reduction, and provided crucial habitats for terrestrial and marine life, promoting sustainable development and safeguarding the environment for future generations.

Ms. Maya Haddad, Sustainability Manager at Ajman University, emphasized, "World Environment Day reminds us of our deep commitment to protecting biodiversity and natural resources. The celebration promotes environmental awareness and community engagement in conservation and sustainability efforts. It highlights the need for sustainable decision-making and lifestyles that preserve the environment for future generations. By participating, we affirm our commitment to environmental responsibility and sustainability in all aspects of our lives."

The event concluded with a friendly golf competition, where participants enjoyed fostering sportsmanship and social interaction.

<https://www.ajman.ac.ae/en/news/2024/the-office-of-sustainability-celebrates-world-environment-day-in-collaboration-with-al-zorah-golf-club>

<https://sustainablecampus.ajman.ac.ae/en/gallery/mangrove-planting-project>



Ajman University hosted the 7th Edition of the Ajman International Environment Conference (AIEC)



Ajman University recently hosted the 7th Edition of the Ajman International Environment Conference (AIEC), a landmark event that brought together global experts, academics, and professionals to discuss critical environmental issues. With a focus on "Climate-Neutral City 2050," the conference explored innovative strategies to accelerate climate action and promote sustainable urban development. The event aligned closely with the 28th Conference of the Parties (COP28) to the United Nations Framework Convention on Climate Change, reflecting the UAE's commitment to leading on climate issues.

One of the highlights of the conference was the participation of Ms. Maya Haddad, Sustainability Manager at Ajman University. Her involvement exemplified the university's dedication to sustainability and active contribution to environmental initiatives. In recognition of her efforts, Ms. Haddad received a certificate of recognition for her valuable contribution to the event.

Key topics discussed during the conference included the role of artificial intelligence in achieving net-zero emissions, transitioning to low-carbon infrastructure, and the integration of circular waste economies. These discussions are critical to addressing the environmental challenges of today and fostering collaboration for a more resilient future.

Ajman University's involvement in hosting the conference not only reinforces its commitment to sustainability but also highlights its role as a key player in the UAE's broader environmental and climate initiatives. By actively engaging in these discussions, the university continues to pave the way for innovative solutions that align with the UAE's Vision 2050.

<https://sustainablecampus.ajman.ac.ae/en/news/2024/ajman-university-hosted-the-7th-edition-of-the-ajman-international-environment-conference-aiec>



Ajman University Participates in SNOC Health, Safety, and Environment Exhibition 2024



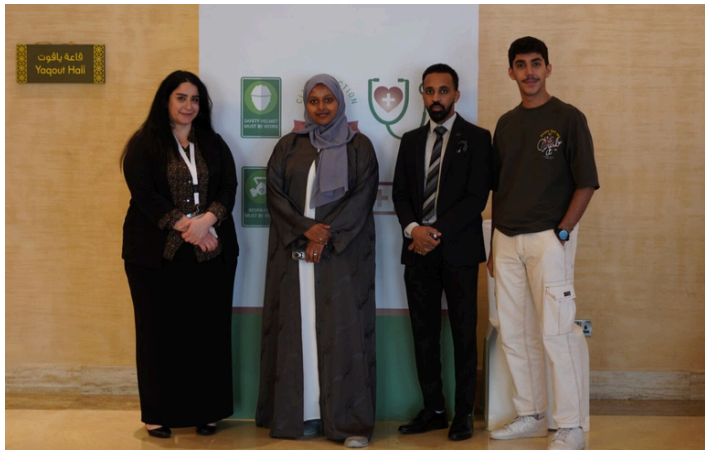
In the presence of Sheikh Mohammed bin Ahmed Sultan Al Qasimi, Vice Chairman of the Oil Council, Ajman University's Sustainability Office participated in SNOC Health, Safety, and Environment Exhibition 2024 (HSE), organized by the Sharjah National Oil Corporation (SNOC) and held at Al Jawaher Reception and Convention Centre in Sharjah. The exhibition was attended by over 200 professionals and experts from government institutions and private companies interested in occupational health and safety. Ms. Maya Haddad, Sustainability Manager at Ajman University, played a key role in moderating two important sessions at the conference. The first session focused on Environmental Sustainability—"Transitioning to Net-Zero: Strategies for Organizations in the UAE"—where the university presented valuable insights on achieving environmental sustainability and adopting effective strategies to meet environmental goals. The second session addressed "Occupational Health Surveillance: Tools and Techniques for Monitoring Workplace Health," showcasing the latest methods and technologies to enhance employee health and safety.

Additionally, University students and staff participated in interactive workshops and training sessions covering a wide range of topics, including emergency response planning, risk assessment, and management.

Ms. Maya Haddad emphasized the importance of these topics, stating: "Achieving net-zero emissions is not just an environmental goal but a crucial necessity for ensuring resource sustainability and protecting the environment for future generations. Similarly, enhancing health and safety in the workplace is a real investment in employee well-being and productivity. At Ajman University, our commitment to these issues contributes to building a safer and more sustainable work environment, reinforcing our efforts to provide innovative and effective solutions in these vital areas."

Ajman University's participation in this exhibition provided an excellent opportunity to share knowledge and exchange experiences in the fields of health, safety, and the environment. It facilitated discussions on current trends and challenges while exploring the latest technologies and solutions.

<https://sustainablecampus.ajman.ac.ae/en/news/2024/ajman-university-participates-in-snoc-health-safety-and-environment-exhibition-2024>



Ajman University Participates in First Education Sector Environment, Health and Safety Forum Organized by Emirates Schools Establishment



The Office of Sustainability at Ajman University participated in the First Education Sector Environment, Health and Safety (EHS) Forum, organized by the Emirates Schools Establishment, under the theme "Our Schools are Safe and Sustainable". The Office of Sustainability showcased the University's best practices in environmental health and safety at the forum, focusing on education, environment, health, and safety sectors.

In addition, Ajman University's booth highlighted the University's efforts to create a safe and sustainable campus through implementing an effective EHS management system including safety auditing cycles, aimed at mitigating environment health and safety risks. The booth also featured interactive games designed to make learning about environmental health and safety an engaging experience. Visitors participated in activities such as "First Aid Game", "EHS Jeopardy Challenge", and "Spot the Hazards", effectively increasing awareness about occupational health and safety procedures.

The forum included numerous educational and awareness workshops in the fields of environment, health, and safety, aiming to raise awareness about safety standards and sustainable practices across educational institutions. The forum also provided a platform to discuss innovative solutions to challenges in these vital areas.

Ajman University's participation in the forum underscores its commitment to promoting best practices in health and safety within educational institutions. The University leverages leading experiences to support efforts in establishing a safe and sustainable learning environment for its community.

<https://sustainablecampus.ajman.ac.ae/en/news/2024/ajman-university-participates-in-first-education-sector-environment-health-and-safety-forum-organized-by-emirates-schools-establishment>



Ajman University Participates in MOCCAЕ Consultation on ESG Practices



Ajman University participated in the stakeholder consultation on Environmental, Social, and Corporate Governance (ESG) practices, organized by the Ministry of Climate Change and Environment (MOCCAЕ) in collaboration with the Global Green Growth Institute (GGGI). The session aimed to enhance the exchange of expertise among various sectors and discuss ways to advance sustainability practices in the UAE.

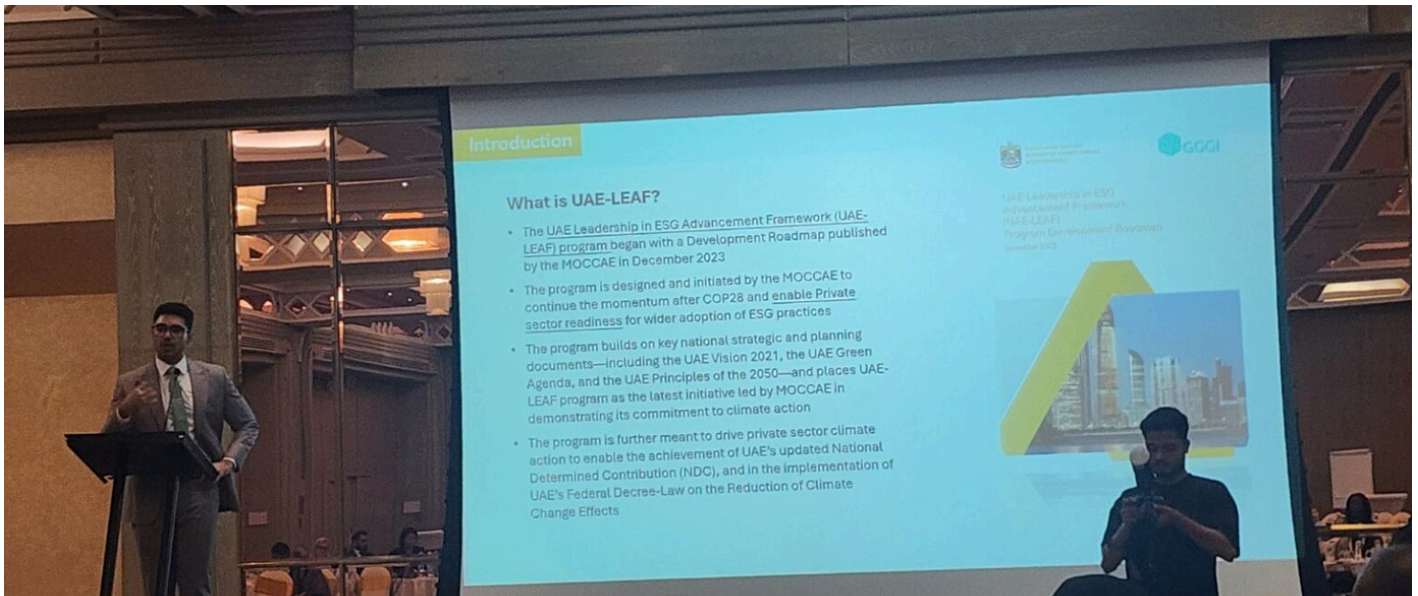
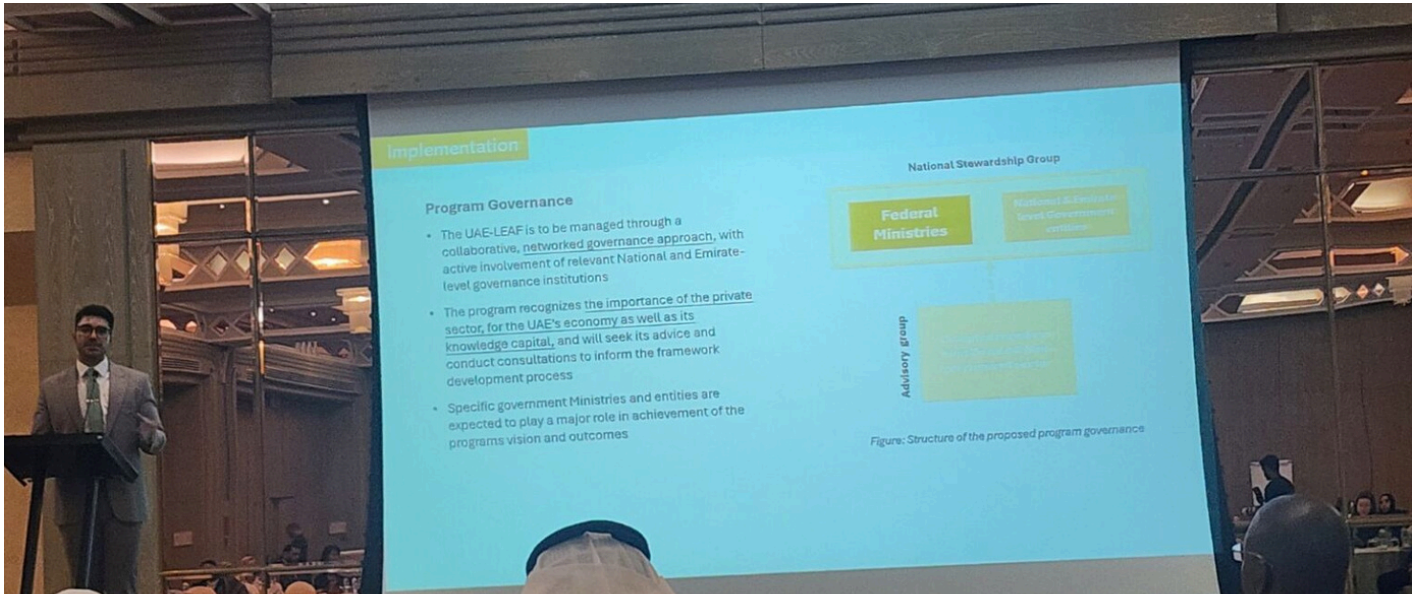
The Office of Sustainability at Ajman University, represented by Maya Haddad, Senior Sustainability Manager, took part in discussions focused on aligning private sector activities with ESG standards. Ms. Haddad provided practical recommendations to MOCCAЕ on integrating climate priorities and promoting collaborative planning for climate change adaptation and disaster management. She also emphasized the vital role of academic expertise in supporting policy development and fostering sustainable institutional practices.

The session was held as part of the UAE Leadership in ESG Advancement Framework (UAE-LEAF) program, launched by MOCCAЕ to encourage private sector participation in adopting sustainability practices aligned with UAE Vision 2021, the Green Agenda, and the UAE Principles of 2050.

The participation of Ajman University's Office of Sustainability reaffirms its commitment to supporting national sustainability goals and enhancing collaboration among academia, government, and the private sector. It also highlights the office's role in advancing knowledge and applying academic expertise to support environmental policies and initiatives. This contributes to a more sustainable and resilient future for the United Arab Emirates.

The UAE Leadership in ESG Advancement Framework 2024 (UAE-LEAF) can be found at https://ehs.ajman.ac.ae/upload/files/ehs/Stakeholder_Invitation.pdf

<https://sustainablecampus.ajman.ac.ae/en/news/2024/ajman-university-participates-in-moccae-consultation-on-esg-practices>



Ajman University's Office of Sustainability Takes Part in Dubai Holding Women + Fin-Erth Climate Dinner

Ajman University, represented by the Office of Sustainability, participated in the inaugural Dubai Holding Women + Fin-Erth Climate Dinner held on 17 September 2024 at Al Nafoorah, Jumeirah Al Qasr Hotel, Dubai. Organized by Dubai Holding, in partnership with Fin-Erth, the exclusive event gathered around 80 influential women leaders across the UAE's climate ecosystem to explore collaborative pathways for advancing climate solutions and building momentum towards a sustainable future.

Building on the legacy of COP28 and Dubai Holding's pivotal role as a Principal Pathway Sponsor, the dinner marked the first step in establishing a dedicated community of female leaders committed to driving environmental progress and supporting the UAE's Net Zero 2050 agenda. The evening featured a welcome reception followed by a guided seated dinner designed to encourage open dialogue, knowledge exchange, and collective brainstorming around unlocking innovative approaches to climate action.

Throughout the discussions, participants reflected on the power of women's leadership in accelerating sustainability initiatives across diverse sectors, from green finance and circular economy solutions to low-carbon innovation. The gathering underscored the significance of fostering inclusive platforms where women can collaborate, mentor, and amplify each other's impact in shaping a resilient climate future.

The event also served as a launchpad for ongoing engagement, with attendees invited to join a dedicated WhatsApp community, a dynamic network aimed at sustaining collaboration, learning, and mutual support among women driving climate action in the region. Fin-Erth will circulate the key discussion takeaways and future action points emerging from the dinner's thematic tables.

Ajman University's participation reflects its ongoing dedication to empowering women in sustainability leadership and its alignment with the UAE's national vision for climate innovation, gender inclusion, and global environmental stewardship.

<https://sustainablecampus.ajman.ac.ae/en/news/2024/ajman-universitys-office-of-sustainability-takes-part-in-dubai-holding-women-fin-erth-climate-dinner>

<https://sustainablecampus.ajman.ac.ae/en/gallery/dubai-holdings-building-momentum-in-climate-dinner>



Ajman University Lends Expertise to National Climate Agenda at Emirates Environmental Council Brainstorming Session

In a significant move to align institutional knowledge with national priorities, Ajman University's sustainability leaders participated in a high-level brainstorming session with the Emirates Municipal Environmental Council. The session, convened by the Council established under the Ministry of Climate Change and Environment, focused on developing integrated strategies to advance the UAE's environmental and climate goals.

The University's delegation, including its Senior Sustainability Managers and faculty experts, contributed across multiple specialized teams, positioning AU as a key academic partner in translating national climate policy into actionable, ground-level initiatives.

"Our role extends beyond our campus borders," stated Maya Haddad from Ajman University's Office of Sustainability. "This collaborative session was a powerful demonstration of how academic research, innovation, and community engagement can directly inform and accelerate national progress. By contributing to these teams, we are ensuring that scientific rigor and educational excellence are embedded into the UAE's journey toward a sustainable future."

The brainstorming session saw AU experts provide strategic input across five critical pillars of the Council's work:

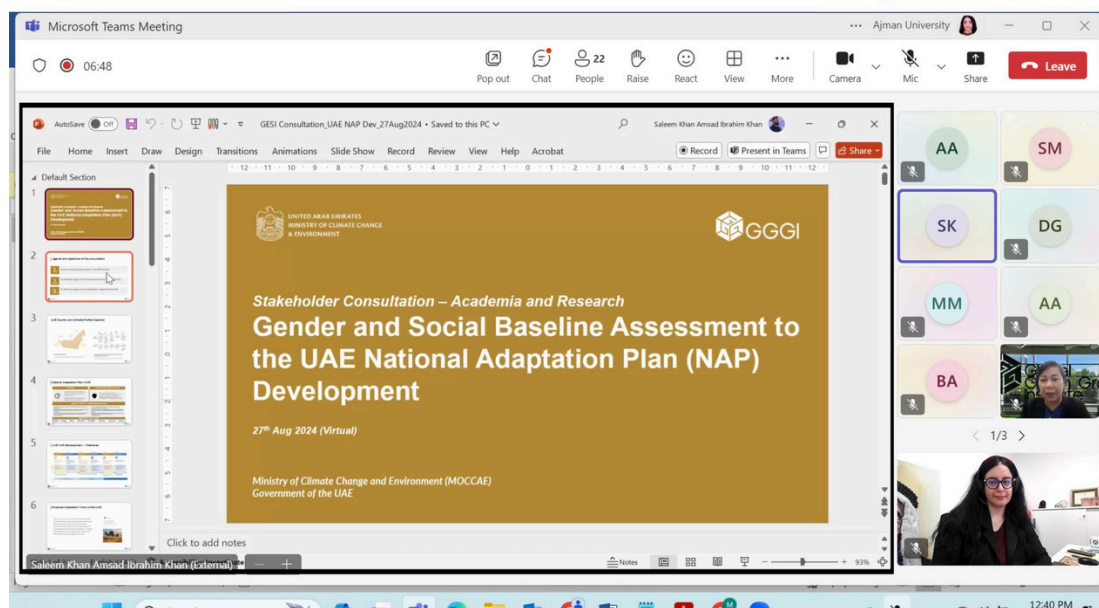
1. **Environmental and Municipal Studies and Research:** University researchers proposed collaborative studies on pressing local environmental challenges, offering the institution's advanced labs and data analysis capabilities to support evidence-based municipal decision-making.
2. **Education and Public Awareness:** Drawing on its core mission, the AU team brainstormed innovative public outreach campaigns and curriculum frameworks designed to foster a culture of environmental stewardship from schools to the wider community.
3. **Regional and International Representation:** Faculty members with global experience contributed insights on international best practices, helping to position the UAE's municipal efforts within the broader context of global climate agreements and partnerships.
4. **Policy and Legislation Development:** Legal and policy scholars from the University provided critical analysis for drafting robust environmental regulations, ensuring that new policies are both scientifically sound and practically enforceable.

Transformational Projects: Engineers and sustainability innovators from AU contributed ideas for pioneering projects in areas like circular waste management and green infrastructure, showcasing the university's capacity to be a testbed for scalable, real-world solutions.

This active participation underscores Ajman University's deep commitment to its Third Mission of community engagement and its strategic alignment with the UAE's Net Zero by 2050 Strategic Initiative. By lending its academic and technical weight to the Emirates Municipal Environmental Council, the University continues to solidify its role as a vital engine for environmental progress and a key contributor to a greener, more resilient future for the nation.

<https://sustainablecampus.ajman.ac.ae/en/news/2024/ajman-university-lends-expertise-to-national-climate-agenda-at-emirates-environmental-council-brainstorming-session>

Ajman University Shapes National Climate Resilience at UAE Adaptation Plan Consultation



Ajman University has reinforced its role as a key advisor to the nation's climate agenda through its active participation in the official government consultation sessions for the UAE National Climate Adaptation Plan (NAP). The high-level meeting, led by the national Climate Change Team and GGGI, focused on integrating social equity and robust governance into the core of the country's strategy to build resilience against climate impacts.

The consultation served as a critical platform to ensure the plan is both inclusive and effective. University representatives contributed expert insights on two foundational pillars of the NAP: conducting a Gender and Social Safeguards Assessment and establishing a Climate Governance Baseline.

"Contributing to the UAE's National Adaptation Plan is a responsibility we hold with the utmost importance," said a senior sustainability lead from Ajman University. "Climate change does not impact everyone equally. Our input ensures that the national strategy is not only scientifically sound but also socially just, protecting vulnerable groups and leveraging the strengths of all segments of society. This aligns perfectly with our university's commitment to sustainable and inclusive development."

The session centered on several key national objectives, where AU's expertise proved invaluable:

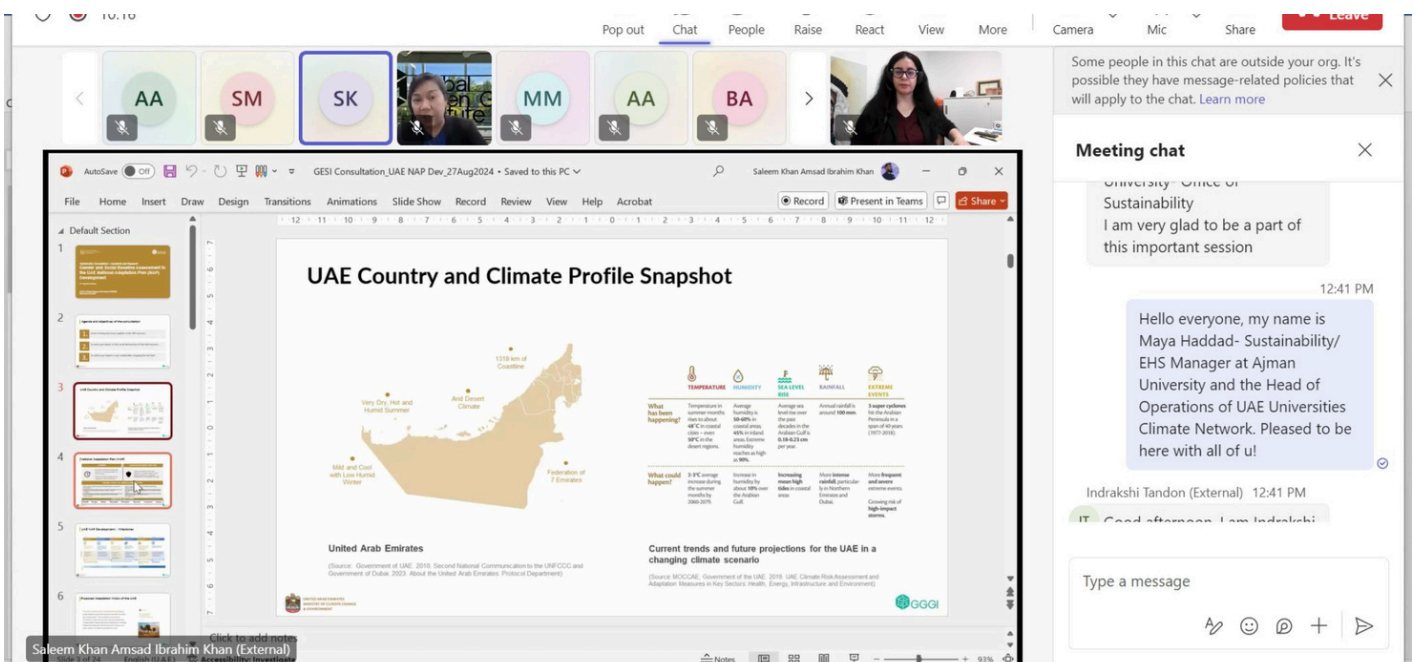
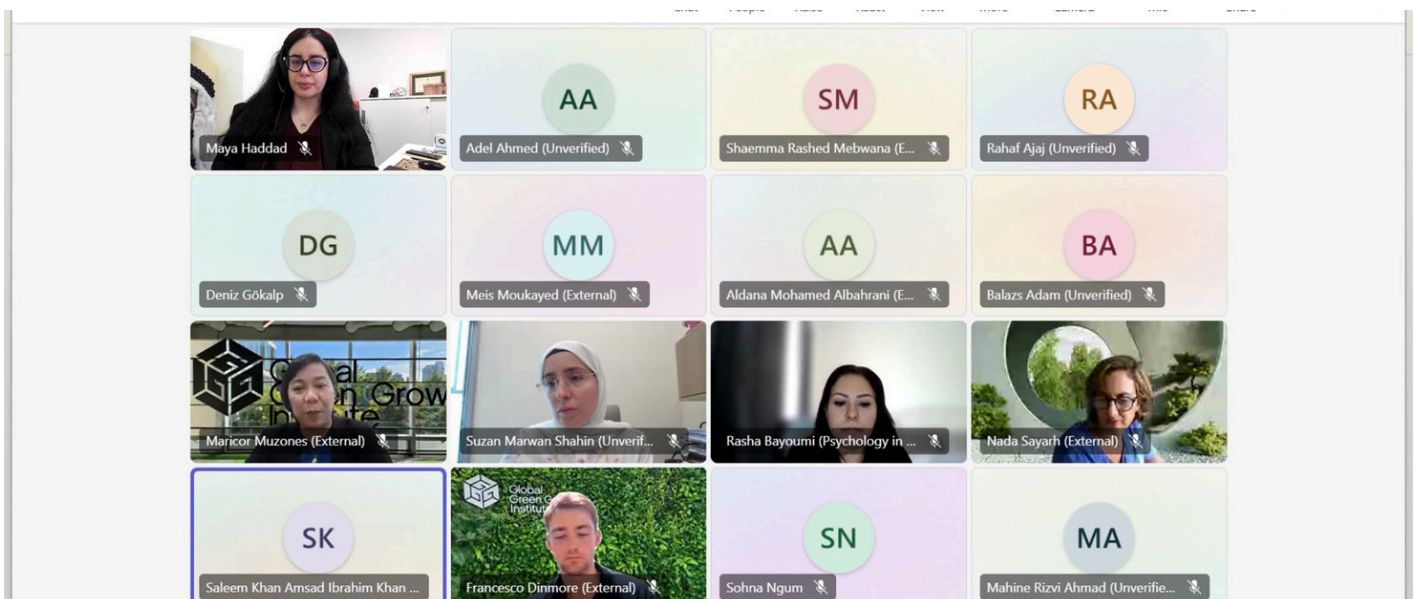
- Ensuring Inclusive Adaptation: Providing input to guarantee the NAP mitigates negative social impacts and promotes sustainable development for all people in the UAE.
- Mapping Social Safeguards: Helping to identify key policies related to gender equality and socioeconomic development that are relevant to climate adaptation.
- Strengthening Institutional Capacity: Contributing to the assessment of stakeholder capacity to implement inclusive and equitable climate policies.
- Fostering Collaborative Governance: Engaging as a key stakeholder to ensure the NAP is widely supported, participatory, and effectively addresses the nation's adaptation needs.

Following the session, Ajman University is also contributing to two vital national surveys emanating from the consultation, further solidifying its partnership in the plan's development.

This direct engagement underscores Ajman University's strategic alignment with the UAE's Net Zero 2050 ambition and its commitment to the UN Sustainable Development Goals (SDGs). By lending its academic and professional expertise to this foundational national policy, the university continues to demonstrate its vital role in building a more resilient and sustainable future for the United Arab Emirates.

<https://sustainablecampus.ajman.ac.ae/en/news/2024/ajman-university-shapes-national-climate-resilience-at-uae-adaptation-plan-consultation>

<https://sustainablecampus.ajman.ac.ae/en/gallery/consultation-sessions-for-the-uae-national-climate-adaptation-plan-nap-gesi>



Safeguarding policies mitigate, minimize, and manage risks of climate impacts to vulnerable groups

Climate change impacts on UAE are varied... ..and impact vulnerable groups disproportionately¹

CLIMATE CHANGE **DIRECT CONSEQUENCE** **PRIORITY CLIMATE RISKS**

1: www.worldweatherattribution.org/heavy-precipitation-hitting-vulnerable-communities-in-the-uae-and-often-becoming-an-increasing-threat-as-the-climate-warms
2: <https://www.worldbank.org/en/projects-operations/environmental-and-social-policies/safeguards>

- Reduce mobility and access to essential services
- Increased risk to livelihoods
- Increased stresses on health
- Increased exposure to environmental hazards

Safeguarding policies ensures adaptation initiatives identify and mitigate these risks²

Environmental and social impact assessment
Evaluates potential environmental and social effects of a project to safeguard communities and ecosystems

Performance Standards for Private Sector Activities
Applying environmental and social policy standards that are better suited to the private sector

Labor working conditions
Enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions

Community health and safety
Addresses the health, safety, and security risks and impacts on project-affected communities

AA SM

SK MM

AA

BA DG

1/3

National Adaptation Plan (NAP)

Definition

- A strategic framework developed by countries to manage the impacts of climate change.
- A primary vehicle for implementing adaptation at the national level.

Social considerations in the NAP

Social considerations need to be integrated to mitigate negative social impacts and promote sustainable development for the people of the UAE.

Objectives of the UAE National Adaptation Plan

Increase the adaptive capacity of the UAE People, Economy and Environment

Facilitate mainstreaming adaptation in UAE's sectoral strategies

Act as an information hub for adaptation data, information and knowledge

Serve as a guiding document for adaptation planning, implementation & monitoring

Set a benchmark in the MENA (Middle East and North Africa) Region.

Demonstrate UAE's commitment to the Paris Agreement

Targeted UAE NAP Sectors

Health Energy Water Education Transport Tourism Insurance Labour

HP IT

ZS SF

AV

3/3

UAE Climate Change Research Network (CCRN)

CCRN Objectives

- Provides a forum to discuss topics of relevance to climate research in the UAE and the wider Arabian Gulf
- Facilitates knowledge exchange, and sharing of ongoing work and ideas for further research.
- Facilitates identification of recurring research challenges and their solutions
- Allows government and academia to together identify knowledge and data gaps, and define a relevant climate science agenda for the country.
- Acts as a springboard for research collaborations and joint research projects
- Provides opportunities for climate scientists in the region to engage with each other and with researchers from other countries.

CCRN Research Clusters

- Climate Data and Modelling
- Climate Change and Infrastructure
- Climate Change & Terrestrial, Marine & Freshwater Ecosystem
- Climate Change & Public Health
- Climate Change & Food & Water Security

IT ZS

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Ajman University Student Showcases Groundbreaking Air Quality Improvement Project at COP29



In a remarkable display of student innovation, Ajman University (AU) undergraduate Doaa Al Alimi made an impressive impact at COP29 in Baku with her award-winning air quality improvement solution. Doaa made AU proud by showcasing her next-gen climate solution in the UAE Pavilion at COP29 in Baku, Azerbaijan.

Doaa along with her colleagues Shaima Hussein and Bibi Hashimi, designed a solution that prioritizes agricultural sustainability while addressing the global challenge of air pollution. Termed the Electric Green Pot, the solution focuses on purifying the air, capturing carbon, and promoting plant growth through a sustainable and energy-efficient design.

Their invention beat out 70 competing projects from 15 universities at the prestigious Green Campus Competition hosted by Khalifa University, earning them a coveted spot at the UAE pavilion at COP29.

Speaking at COP29's Universities Climate Network (UCN) session, Doaa shared her vision with international leaders and sustainability experts. "The experience was surreal," said Doaa. "I had the opportunity to discuss my ideas with global leaders and experts who shared my passion for sustainable solutions." The presentation demonstrated how student initiatives can address multiple UN Sustainable Development Goals simultaneously, from promoting good health to building sustainable communities.

Ajman University's Office of Sustainability played a vital role in the success of these students. The support provided by the Office of Sustainability proved instrumental in transforming a promising concept into a competition-winning reality. The office facilitated crucial mentorship through ICARDA, a leading agricultural research institute, and provided real-world air quality data that gave the project its scientific backbone.

Doaa and her team proved how seemingly simple solutions can address complex global challenges. As climate change continues to dominate global discussions, these young innovators from Ajman University have proven that the next generation isn't waiting for solutions—they're creating them.

<https://www.ajman.ac.ae/en/news/2024/ajman-university-student-showcases-groundbreaking-air-quality-improvement-project-at-cop29>

Integrated Marketing Communication Students Present Graduation Projects Under the Theme "Health and Safety for UAE Generations"



In celebration of the UAE's 53rd National Day, the College of Mass Communication organized an inspiring graduation projects exhibition for Integrated Marketing Communication students under the theme "Health and Safety for the Generations of the UAE."

Supervised by Dr. Dina El-Khattat and Ms. Layal Ayoub, the event was inaugurated by Dr. Hosam Salama, Dean of the College, in the presence of Dr. Emad Omar, Head of the Department, alongside faculty members and colleagues.

The exhibition featured three innovative awareness campaigns designed by the students. The first campaign, titled "Aman" (Safety) and carrying the slogan "Your Safety Lies in Your Awareness," aimed to educate children and youth about the importance of cybersecurity and strategies for protecting themselves from cybercrimes. Another campaign, "Today's Children Are Tomorrow's Heroes," highlighted the importance of supporting children and nurturing their abilities to prepare them as future leaders. The third campaign, "Draw Your Life Path" with the slogan "Shape Your Healthy Path," focused on promoting healthy nutrition and physical activity to ensure the well-being of children and youth, while encouraging participation in sports events organized across the UAE.

The graduation projects demonstrated the students' creativity and commitment to addressing key societal issues, aligning with the UAE's vision for a healthier and more secure future for its generations.

<https://www.ajman.ac.ae/en/news/2024/integrated-marketing-communication-students-present-graduation-projects-under-the-theme-health-and-safety-for-uae-generations>

<https://www.youtube.com/watch?v=7GC904mZGIM>

<https://www.youtube.com/watch?v=fdky3jufdmU>

Ajman University Students Shine at the 8th BUiD Doctoral Research Conference 2024



Students from Ajman University's College of Architecture, Art and Design participated in the 8th BUiD Doctoral Research Conference 2024. Fourth-year architecture students Itemat Sauria, Shaikha Alblooki, and Sima Zakzak, supervised by Dr. Muna Salameh, Senior Lecturer at the College of Architecture, Art and Design, presented their ground-breaking research titled "Comparative Analysis by Passive Design Solutions for Enhanced Energy Efficiency in Sharjah, UAE." Their research, which demonstrated their dedication and expertise, is a testament to the impactful studies our students are capable of.

The conference provided an international platform for students to share and publish work across fields such as education, business, law, engineering, sustainable design, and innovation. It brought together researchers, educators, thought leaders, practitioners, technocrats, and business leaders to discuss the latest trends and discoveries.

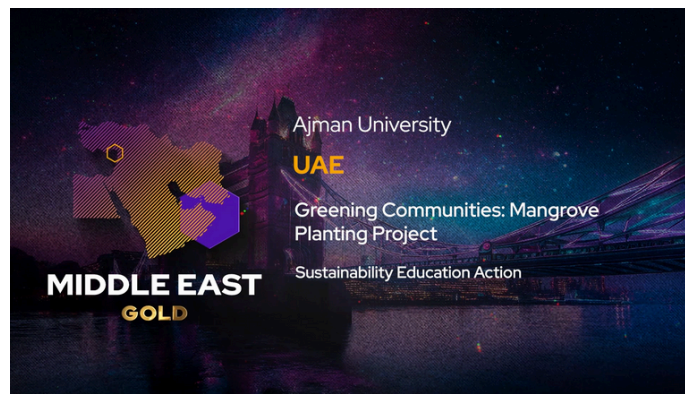
<https://www.ajman.ac.ae/en/news/2024/ajman-university-students-shine-at-the-8th-buid-doctoral-research-conference-2024>

Ajman University Shines at HCT Innovation Month with Sustainable Pavilion Designs and Artwork

Ajman University made a notable impression at the HCT - Business Dept. Innovation Month in Sharjah. Led by Dr. Muna Salameh and Ms. Ayat, the university showcased innovative pavilions and traditional artwork. Their entries, distinguished by creative use of recycled materials, earned student Aida Touqan and her supervisor Dr. Muna secured second place, accompanied by a trophy and certificate. Additionally, Dr. Muna honored with Ajman University trophy by Dr. Ahmed Al Mulla, Director of Sharjah Men's Colleges, recognizing the project's contributions to sustainability and innovation.

<https://www.ajman.ac.ae/en/cad/news/2024/ajman-university-shines-at-hct-innovation-month-with-sustainable-pavilion-designs-and-artwork>

Ajman University Clinches QS Reimagine Education Award 2024 for Pioneering Sustainability Initiative



Ajman University is proud to announce that it has won the prestigious QS Reimagine Education Award 2024 for "Sustainability Education Action." This accolade was awarded in recognition of the University's groundbreaking initiative, the 'Greening Communities: Mangrove Planting Project.' This honor underscores the University's commitment to environmental sustainability and its dedication to empowering youth and communities with the necessary skills and knowledge to drive the UAE's ambitious sustainability goals.

The project's objectives align with the UAE's national plan to plant 100 million mangrove trees by 2030. Spearheaded by Ajman University's Office of Sustainability, in partnership with Al Zorah Development Private Company and Quest for Adventure, the initiative engages students and local communities in the preservation and rejuvenation of mangrove ecosystems, highlighting Ajman University's pivotal role in advancing a sustainable future.

Reflecting on this significant achievement, Dr. Karim Seghir, Chancellor of Ajman University, said, "Receiving the QS Reimagine Education Award for Sustainability Education Action is a powerful validation of our commitment to sustainability. It invigorates our efforts to engage youth and communities in impactful environmental action, driving meaningful change in alignment with the UAE's sustainability objectives."

The project incorporates a variety of educational programs and workshops designed to heighten awareness about critical environmental issues. These initiatives equip participants with the skills and knowledge needed to tackle environmental challenges, empowering them to become advocates for positive change within their communities.

Moreover, the initiative supports several United Nations Sustainable Development Goals, including Quality Education, Climate Action, Life on Land, and Partnerships for the Goals.

The QS Reimagine Education Award is a highly esteemed honor within the education sector, recognizing innovative approaches that enhance learning outcomes, improve employability, and advance sustainability education. Now in its 11th year, the award features 17 categories, celebrating transformative educational practices globally. Each year, the competition attracts over 1,200 submissions from around the world, evaluated by a distinguished panel of more than 900 international expert judges.

<https://www.ajman.ac.ae/en/news/2024/ajman-university-clinches-qs-reimagine-education-award-2024-for-pioneering-sustainability-initiative>

<https://sustainablecampus.ajman.ac.ae/en/gallery/qs-reimagine-education-awards-winner>

Ajman University Champions Circular Economy Dialogue at High-Level Mashreq Future Sustainability Forum

Ajman University, represented by the Office of Sustainability, took part in the Mashreq Future Sustainability Forum Roundtable held at Madinat Jumeirah, Dubai. Organized by Gulf Intelligence and hosted by Mashreq Bank, the high-level roundtable brought together sustainability leaders and experts to explore the critical question: “How can sustainability and the circular economy drive greener economies?”

The roundtable, hosted by Joel Van Dusen, Group Head of Corporate and Investment Banking at Mashreq, and Faisal Mohammed Al Shimmari, Executive Vice President and Head of ESG & Corporate Strategy at Mashreq, convened thought leaders from the financial, environmental, and industrial sectors to discuss pathways toward sustainable economic transformation. The forum focused on how renewable energy adoption, circular economy integration, and green investments can collectively accelerate the transition toward low-carbon, resilient economies.

The discussion emphasized the pivotal role of the circular economy in decoupling growth from resource depletion by promoting reduction, reuse, and recycling models. Experts also highlighted how sustainable business practices and cross-sector collaboration can generate green jobs, strengthen global competitiveness, and advance alignment with the UN Sustainable Development Goals (SDGs) and the Paris Agreement.

Distinguished speakers included Dr. Samar Abdo Al Ghalebi, Founder of VestinGrow, who shared insights on green infrastructure investments; Riad Bestani, Founder and CEO of ECOsquare, who discussed industrial solutions to waste management; Ragini Kalapatapu, Head of ESG at Egis, who elaborated on decarbonization strategies; and Hassaan Ghazali, ESG Expert at AHG Global, who addressed the policy dimensions of sustainability and environmental law. The session was moderated by Sean Evers, Managing Partner at Gulf Intelligence.

Throughout the engaging discussion, participants underscored the importance of public awareness, innovation, and partnerships between the private and public sectors to build circular systems that enable long-term prosperity and environmental balance. The forum reinforced the message that sustainability is not merely an environmental obligation but a strategic economic opportunity that paves the way for a greener and more inclusive future.

Ajman University’s participation reflects its ongoing commitment to fostering a sustainable mindset within and beyond academia, aligning with the UAE’s vision to lead in climate action, green finance, and circular economy innovation.

<https://sustainablecampus.ajman.ac.ae/en/news/2024/ajman-university-champions-circular-economy-dialogue-at-high-level-mashreq-future-sustainability-forum>

Ajman University Students Excel at Pathway to Net-Zero Competition by BEEAH

Ajman University's College of Business Administration, in partnership with the BEEAH group, hosted the second annual "Pathway to Net Zero: Innovating for a Sustainable Future" competition. This event brought together students from the Innovation and Entrepreneurship course to develop practical solutions to real-world carbon dioxide (CO₂) emissions challenges, a crucial step towards achieving net-zero emissions.

Throughout the semester, students applied design thinking principles – empathy, lateral thinking, prototyping – to create innovative solutions aligned with the United Nations Sustainable Development Goals. The competition fostered valuable skills in problem-solving, teamwork, and innovation while addressing critical environmental issues.

Celebrating Innovation and Sustainability

Twenty teams – 16 from Ajman University and 4 from the British University – presented their projects to a panel of esteemed judges, showcasing a wide range of sustainable solutions. After a rigorous evaluation, the top three teams, all from Ajman University, were awarded prizes for their outstanding contributions to environmental sustainability.

Three enterprising teams of students from Ajman University won the first, second and third prizes respectively for displaying unmatched creativity and innovation in designing sustainable solutions to endemic CO₂ emissions challenges.

Team 1 led by Yahya Ait Elhadi and comprising students Abdulrahman Hammad, Abed Shirzad and Khaled Aldubhani won the first prize for their solution focused on enhancing the efficiency of air-conditioning systems while reducing greenhouse gas emissions.

Team 2 led by Dina Ataallah, along with team members Sarah Barake and Reema Saif won the second prize for Carbonbloom, an artificial tree that mimics real trees to absorb carbon emissions and release oxygen into the atmosphere.

Team 3 led by Jean Luca-Lista, an exchange student at Ajman University, along with team members Ahmad Salah, Mohammed Ashraf, Amjad Fatooh and Mohammed Houssam won the third prize for their creative use of algae to naturally purify air in high-density spaces.

Nurturing Sustainability Skills

This competition demonstrates Ajman University's commitment to hands-on learning, preparing students for success in a sustainability-driven world. By emphasizing creativity and practical application, the university is cultivating graduates equipped to drive meaningful change in their careers.

Ajman University remains dedicated to fostering a culture of innovation and sustainability, empowering students to lead the way towards a cleaner, greener future.

<https://www.ajman.ac.ae/en/news/2024/ajman-university-students-excel-at-pathway-to-net-zero-competition-by-beeah>

AI and Digital Transformation Take Center Stage in Mining Sector Panel



Ajman, UAE - Dr. Fares Howari, Dean of the College of Humanities and Sciences at Ajman University, successfully moderated a pivotal panel session on "Innovation and Digital Transformation in the Mining Sector" in collaboration with key industry partners, including Fujairah Natural Resources Corporation, the Arab Industrial Development Standardization and Mining Organization, and the Ministry of Energy and Infrastructure.

The high-profile event brought together leading experts in artificial intelligence, data analytics, and technological innovation to explore cutting-edge approaches to mining and resource extraction. Distinguished panelists included Dr. Nour Aburaed from the University of Dubai, Dr. Mohammed Al-Loughani from Mohamed Bin Zayed University of AI, Professor Mérouane Debbah from Khalifa University, and Mr. Rob Mortimer, founder of Fuelre4m.

Dr. Howari orchestrated a comprehensive discussion that delved into critical themes such as AI applications in mineral exploration, sustainability challenges, and the potential of digital technologies to revolutionize the mining industry. The panel explored innovative solutions ranging from AI-driven image processing to advanced predictive maintenance technologies.

Key topics addressed included:

- Artificial intelligence's role in improving operational efficiency
- Environmental sustainability in resource extraction
- Cybersecurity challenges in digital mining
- Workforce transformation through technological innovation

The event highlighted the UAE's commitment to technological advancement in the resource sector, showcasing the nation's leadership in integrating cutting-edge digital solutions into traditional industries. Dr. Howari emphasized the transformative potential of these technologies, stating that "embracing innovation is crucial for creating a more efficient, safe, and sustainable future in the mining sector."

The panel session concluded with a robust audience Q&A, providing a platform for deeper exploration of the intersection between technology and resource extraction.

<https://www.ajman.ac.ae/en/news/2024/ai-and-digital-transformation-take-center-stage-in-mining-sector-panel>

Ajman University Signs MoU with Greenpeace MENA to Launch the "UAE Wellbeing Economy Award"



Ajman University signed a Memorandum of Understanding (MoU) with Greenpeace Middle East and North Africa (Greenpeace MENA) to launch the "UAE Wellbeing Economy Award" in the United Arab Emirates. The MoU aims to promote sustainable development practices by encouraging stakeholders to actively participate in shaping a forward-looking vision for the UAE, one that is characterized by prosperity, inclusivity, and resilience, with a strong emphasis on environmental and social sustainability to ensure a sustainable future for generations to come.

The "UAE Wellbeing Economy Award" will open for applications on December 11, 2024, and is specifically targeted at students and independent researchers working in institutions based in the UAE. The award invites participants to submit innovative ideas and proposals that reimagine the concept of wellbeing and challenge traditional economic systems in the country.

The award also focuses on several key areas concerning the future of the UAE's economy, addressing critical issues such as: the future of alternative economies, societal perceptions that consider luxury as an indicator of wellbeing, the search for alternative indicators to Gross Domestic Product (GDP), and exploring the future of energy and sustainable energy transitions in the country. The goal of the award is to highlight the importance of critical thinking and offer innovative economic solutions that meet the environmental and social challenges of the 21st century.

This award provides a unique opportunity for participants to present ideas that contribute to developing innovative economic solutions that align with the UAE's vision for sustainable development and the enhancement of community wellbeing beyond traditional metrics. Interested participants can apply for the award through the dedicated link, which will open in December 2024.

The MoU between Ajman University and Greenpeace MENA is in line with the University's commitment to corporate social responsibility, raising awareness about environmental and economic sustainability, and supporting research and initiatives aimed at improving quality of life and fostering collaboration among various stakeholders in both the academic and local communities.

<https://www.ajman.ac.ae/en/news/2024/ajman-university-signs-mou-with-greenpeace-mena-to-launch-the-uae-wellbeing-economy-award>

Ministry of Energy and Infrastructure Innovation Week in Dubai



Under the visionary leadership of our esteemed Dean, Prof. Riad Saraiji, we are thrilled to announce that the Ajman University team, led by our dedicated instructors Dr. Muna Salameh as Chair and other team members including Mr. Firas Noori, along with Ms. Basant Elshimy and Ms. Ayat El Khazindar, showcased Architectural innovative projects at the MOEI Innovation Week in Dubai.

Our talented team, comprising Sima Ahmad Zakzak, Maryem Amr Eltahan, Sara Seif Aldeen, Aysha Dhindais, and Rana Khabaz, presented groundbreaking models aimed at reducing energy consumption and promoting sustainable design.

Under the theme of mitigating climate change and reducing greenhouse gas emissions, our projects stood out with their unique and creative solutions, reflecting our commitment to sustainability and positive environmental impact.

We are immensely proud to have been part of such an impactful initiative and grateful for the opportunity to contribute to a brighter, more sustainable future. Stay tuned for more updates on our journey towards innovation and sustainability.



<https://www.ajman.ac.ae/en/cad/news/2024/moei-innovation-week-in-dubai>

Dr. Muna Salameh speaks at Big 5 Global Expo's "Everything Architecture" Program



Dr. Muna Salameh, a faculty member from Ajman University's College of Architecture, Art, and Design, had the honor of presenting at the prestigious Everything Architecture program during the Big 5 Global Expo, held from November 26–29, 2024, at the Dubai World Trade Centre.

In her presentation, titled "Designing for the Needs of Modern Society: Climate Resiliency, Sustainability, and Mobility", Dr. Salameh explored how architectural design must evolve to address the pressing needs of the future. Her session focused on three key aspects:

1. Adapting Architectural Design to Future Requirements
2. Dr. Salameh emphasized the importance of architectural design that accounts for disaster mitigation, sustainable operations, and enhanced mobility to meet emerging challenges.
3. Limitations of Current Design Practices
4. She outlined the shortcomings of existing design approaches in adequately addressing these inevitable future demands.
5. Opportunities in Renovation
6. Dr. Salameh explored how renovations present a unique opportunity to revitalize structures, aligning them with modern needs and sustainability goals.

As part of her presentation, Dr. Salameh shared real-world examples of global projects that have been successfully redeveloped for new uses, highlighting the potential of innovative thinking to meet societal trends and challenges.

Reflecting on the event, Dr. Salameh expressed her gratitude for the opportunity to connect with fellow professionals in the field, stating, "It was a fantastic platform to contribute to meaningful conversations on architecture and sustainability while exchanging insights with experts dedicated to shaping the future of our built environment."

The Big 5 Global Expo remains one of the largest and most impactful gatherings for professionals in the construction and design sectors.

<https://www.ajman.ac.ae/en/cad/news/2024/dr-muna-salameh-speaks-at-big-5-global-expos-everything-architecture-program>

Ajman University Students Secure Second Place in the Undergraduate Research and Innovation Competition



Ajman University students won second place in the Electrical Engineering category at the 11th Undergraduate Research and Innovation Competition at Abu Dhabi University. The team, consisting of Bayan Alradi, Farah Thugan, Rand Agha, Bashayer Al-Maamari, and Ahmed Hegazi, presented their project, "Enhanced Metal Semiconductor Metal UV Light Photodetector Based on ZnSe Thin Film By LACBG," under the supervision of Dr. Zyoud. This achievement highlights their dedication and the importance of collaborative research.

This success underscores Ajman University's commitment to fostering research and innovation among its students, preparing them to contribute effectively to their fields. Bayan Alradi expressed pride in receiving the award, saying, "Winning this award is not just a personal achievement but a milestone for all of us. It represents the cumulative effort and dedication of our team. I am grateful for the guidance from Dr. Zyoud and the support from Ajman University, which provided us with the platform to showcase our innovative ideas."

Additionally, Dr. Samer Zyoud said, "I am immensely proud of the team for their remarkable achievement in the competition. Their dedication and innovative approach were key to securing this award. It's gratifying to see their hard work pay off, and I am confident that this success is just the beginning of many more to come. This accomplishment is a testament to the vibrant research culture we nurture here at Ajman University."

Ajman University provides a dynamic educational environment, empowering students to achieve remarkable scientific and research milestones, both locally and globally.

<https://www.ajman.ac.ae/en/research-news/news/2024/ajman-university-students-secure-second-place-in-the-undergraduate-research-and-innovation-competition>

Dr. Muna Salameh Showcases Innovations in Sustainable Architecture at International Seminar



Dr. Muna Salameh, from the Architecture Department at Ajman University, recently participated as a speaker in the International Seminar on Sustainability in Architecture and Built Environment, hosted by the Faculty of Architecture at Dr. M.G.R- India . Educational and Research Institute in Chennai, India. Her presentation, structured into three key parts, offered a comprehensive exploration of sustainable practices in architecture:

1. **Introduction to Sustainable Architecture:** Dr. Muna began with a foundational overview of sustainable architectural practices, discussing the principles and importance of sustainability in the built environment.
2. **Presentation of Recently Published Research:** In the second segment, she shared insights from two of her latest Scopus-indexed research publications. These studies focused on innovative approaches to energy efficiency and environmental resilience, aligning with global efforts to enhance sustainability in urban design.
3. **Showcase of Ajman University's Sustainable Projects:** Dr. Muna concluded by highlighting various sustainable projects from Ajman University, emphasizing how the institution incorporates sustainable guidelines into its architectural initiatives. These projects reflect the university's commitment to environmental stewardship and innovation in design.

This event provided an opportunity to exchange knowledge with other professionals and institutions, showcasing Ajman University's role in advancing sustainable architecture on an international platform.

<https://www.ajman.ac.ae/en/cad/news/2024/dr-muna-salameh-showcases-innovations-in-sustainable-architecture-at-international-seminar>

Student Research Paper and Projects

Energy efficiency based on passive design solutions in UAE



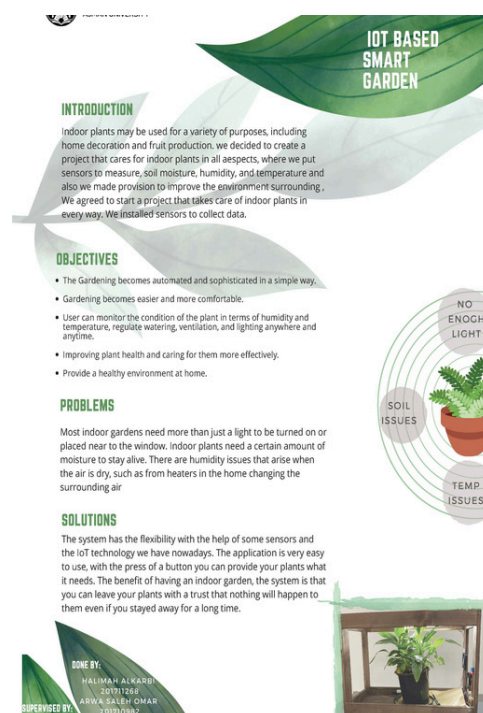
Energy consumption in the building sector accounts for over 30% of global final energy consumption. This figure is much higher in developed countries like the UAE, where energy consumption by the built sector can reach up to 80%. Thus, developing appropriate future energy and climate change strategies requires alternative methods for the reduction of energy consumption in buildings. Passive design techniques, such as shading devices and courtyards, are used in sustainable architecture to create structures that harness sunlight and wind for lighting and ventilation while keeping away heat gain and glare. This research aims to investigate and create a comparison between the effects of two passive design solutions on a villa housing project in Sharjah, United Arab Emirates, through the use of Revit software. The study concluded that courtyards significantly outperformed shading devices in reducing energy costs, providing a greater overall impact on energy consumption. In this research, a comparative study was done between three building types in the same area: a villa without any passive design solution, a villa with the introduction of shading devices, and a villa with a courtyard. The research shows that courtyards, by enhancing natural ventilation and air circulation, lowered HVAC costs to approximately 14.69 AED/m² per year, compared to 33.06 AED/m² per year for louvers. While louvers improved lighting efficiency and reduced lighting needs, they led to slightly higher costs for window shades. Overall, courtyards achieved a cost reduction of 24.24 AED/m² per year versus 6.61 AED/m² per year for shading devices, emphasizing the importance of integrating passive design strategies for sustainable building practices and climate change mitigation.

<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/energy-efficiency-based-on-passive-design-solutions-in-uae>

https://sustainablecampus.ajman.ac.ae/upload/files/ehs/Energy_efficiency_based_on_passive_design_solutions_in_UAE.pdf

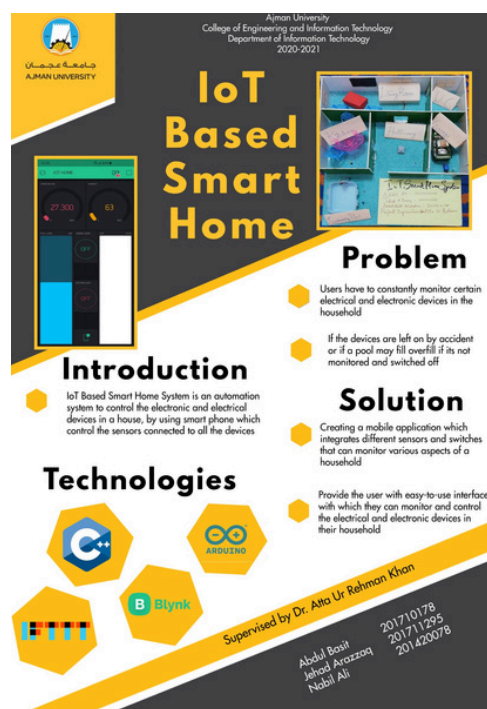
Innovative Environmental Solutions: Pioneering Climate Adaptation

Indoor plants may be used for a variety of purposes, including home decoration and fruit production. We decided to create a project that cares for indoor plants in all aspects, where we put sensors to measure soil moisture, humidity, and temperature and also made provision to improve the environment surrounding. We agreed to start a project that takes care of indoor plants in every way. We installed sensors to collect data. The system has the flexibility with the help of some sensors and the IoT technology we have nowadays. The application is very easy to use, with the press of a button you can provide your plants what it needs. The benefit of having an indoor garden, the system is that you can leave your plants with a trust that nothing will happen to them even if you stayed away for a long time.



<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/iot-based-smart-garden>

IoT Based Smart Home



IoT Based Smart Home System is an automation system to control the electronic and electrical devices in a house, by using a smartphone which controls the sensors connected to all the devices. The solution involves creating a mobile application that integrates various sensors and switches to monitor multiple aspects of the household. This application provides users with an easy-to-use interface, enabling them to conveniently monitor and control the electrical and electronic devices in their home. By using this system, users can ensure that devices are not left on by accident, helping to prevent issues such as overfilled pools or unnecessary power consumption.

<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/iot-based-smart-home>

How Materials Preserve Food, Health, and Sustainability Crosscheck

Food packaging materials play a vital role in preserving the quality and safety of food. By acting as barriers to contaminants and environmental factors, they ensure food's freshness and extend its shelf life. However, the choice of packaging also raises important health and sustainability concerns.

https://sustainablecampus.ajman.ac.ae/upload/files/ehs/Food_packaging_ppt_2.pdf

<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/how-materials-preserve-food-health-and-sustainability-crosscheck>

Al Zorah Sustainable School Ajman

https://sustainablecampus.ajman.ac.ae/upload/files/ehs/AyshaNimraDhinda_202110209_FinalPosters.pdf

<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/al-zorah-sustainable-school-ajman>

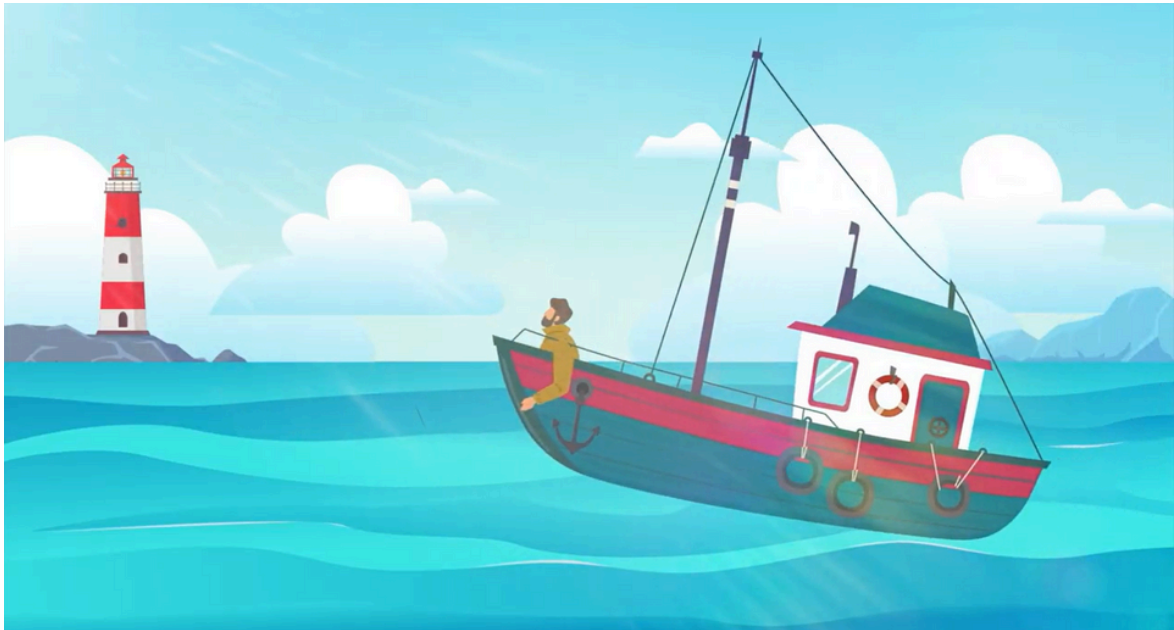
Plastic Pollution Campaign - Graduation Project



<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/plastic-pollution-campaign-graduation-project>

<https://www.youtube.com/watch?v=9AdSMYXvaoc>

Plastic Pollution Animation - Graduation Project



<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/plastic-pollution-animation-graduation-project>

<https://www.youtube.com/watch?v=2OYK9dl0kIM>

Water scarcity and sustainability in Dubai



<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/water-scarcity-and-sustainability-in-dubai>

<https://youtu.be/OUMWa-xNk-c>

Sustainability Green Print - Graduation Project



<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/sustainability-green-print-graduation-project>

<https://youtu.be/hsCVIxEHcbQ>

Integrating Green Infrastructure for Eco-friendly Spaces



<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/integrating-green-infrastructure-for-eco-friendly-spaces>

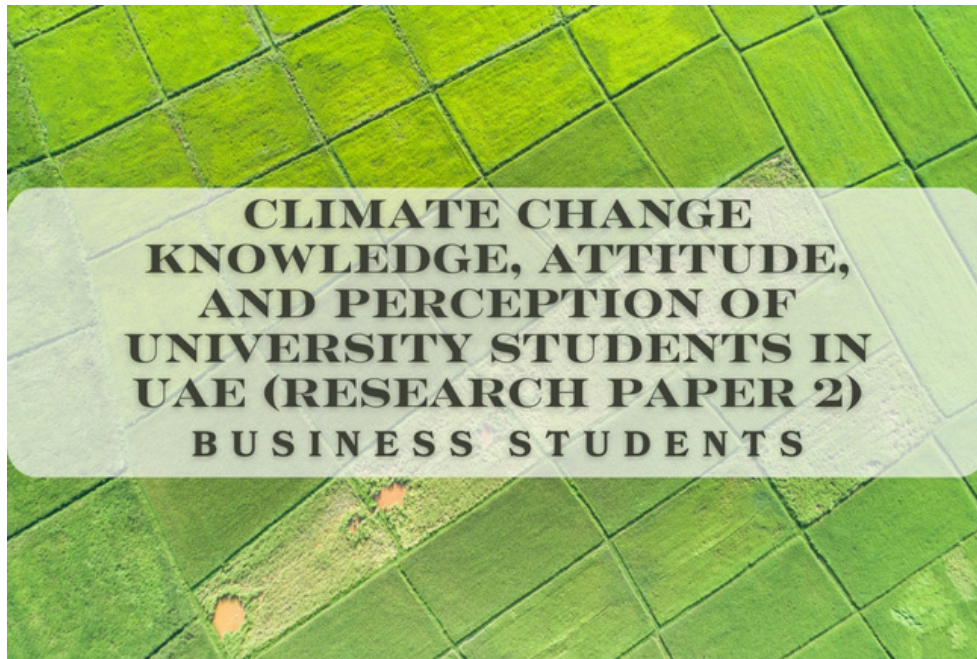
https://sustainablecampus.ajman.ac.ae/upload/files/ehs/emiratis_group_project_.pdf



This study aims to understand, evaluate, and analyze the level of knowledge, attitudes, and perceptions university students in the UAE have toward climate change, while investigating how various demographics might influence the research results. Climate change is a significant issue faced by people all around the world. Students have the obligation to tend to these concerns in the near future. This year UAE is holding the COP to educate their population and transform the country more sustainable. This research is a step towards the goal of understanding the KAP the students have regarding this phenomenon. We are required to raise our awareness, especially the crucial population that will represent the next generation. There was a need to address the gap of university students missing from any sort of analysis done on them. Before this, almost no research directed their focus on the KAP of students in UAE. We distributed and gathered 50 responses to our questionnaire. University students were surveyed and indicated that they possess a high level of knowledge, attitude, and perception about the ever-changing climate change. The results of knowledge and perception do not have significant differences between genders, while attitude has significant differences. This study also unfortunately encompasses certain gaps, the most common is not distributing the questionnaire to a diverse population as well as the restriction of time.

<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/climate-change-knowledge-attitude-and-perception-of-university-students-in-uae-research-paper1>

https://sustainablecampus.ajman.ac.ae/upload/files/ehs/2232936126_-_Muhammad_Basil_Kayani.pdf



This research takes a look at delves into the perceptions, attitudes, and knowledge concerning climate-associated issues among students at Ajman University, UAE. Over 50 college students participated in the survey, presenting insights into their viewpoints on weather exchange and sustainability. The research found an extensive high-quality correlation among perceptions and attitudes towards climate problems, indicating that heightened cognizance regularly aligns with more fine attitudes. Additionally, slight correlations were observed between perceptions/attitudes and knowledge, emphasizing the position of expertise in shaping attitudes and perceptions. Students exhibited numerous stances toward anthropogenic reasons for weather change, highlighting worries approximately the urgency of addressing environmentally demanding situations. The study identifies potential pathways for reinforcing climate literacy and advocacy amongst college students, emphasizing the want for targeted educational interventions and policies to bridge understanding gaps and foster proactive attitudes towards sustainability. These findings lay the groundwork for tailored techniques aimed at cultivating a lifestyle of environmental awareness and movement in many of the more youthful eras in the UAE.

<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/climate-change-knowledge-attitude-and-perception-of-university-students-in-uae-research-paper-2>

https://sustainablecampus.ajman.ac.ae/upload/files/ehs/2232956749_-_Mohammad_Al_Syouf.pdf



This article summarizes a study that looked at how university students in the United Arab Emirates (UAE) perceived and felt about climate change. The study intends to close the research gap by investigating the subtleties of climate change understanding among UAE university students, in recognition of the pressing need for climate action and the possible role of youth in bringing about change. In order to collect data, the study uses a mixed-methods strategy that combines quantitative questionnaires and qualitative focus group talks. Focus group discussions offer more in-depth insights into students' experiences and comprehension of climate change, while the questionnaires evaluate students' knowledge, attitudes, and views of the issue. To promote user comfort and efficient data entry, internet technologies are used to assist the data gathering procedure. Despite possessing a low internal coherence, preliminary results show that the general scale utilized in the study exhibits good dependability for individual items. This implies that the scale captures the desired construct accurately. The document does not, however, include particular statistical analysis results or comprehensive questionnaire and focus group discussion results. Given that university students in the United Arab Emirates have the potential to be future leaders and change agents, the study emphasizes the significance of tackling climate change among them. It highlights the necessity of situation-specific, culturally sensitive interventions that are in line with the goals and problems faced by the young population.. The next generation can be inspired to actively advocate for solutions to climate change by instilling in them a sense of environmental care and responsibility from an early age. This can be achieved through targeted education initiatives and community involvement programs. All things considered, this study advances our knowledge of how UAE university students perceive climate change and offers insightful information to instructors and policymakers. It emphasizes how important it is to create policies and educational programs that operate with the unique sociocultural characteristics and educational frameworks of the United Arab Emirates. The results are intended to guide focused activities that encourage sustainable lifestyle choices and support the country's efforts to combat climate change.

<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/climate-change-knowledge-attitude-and-perception-of-university-students-in-uae-research-paper-3>

https://sustainablecampus.ajman.ac.ae/upload/files/ehs/2232861059_-Abdallah_Alnamrouti.pdf

Climate change knowledge, attitude, and perception of university students in UAE (Research paper 4)

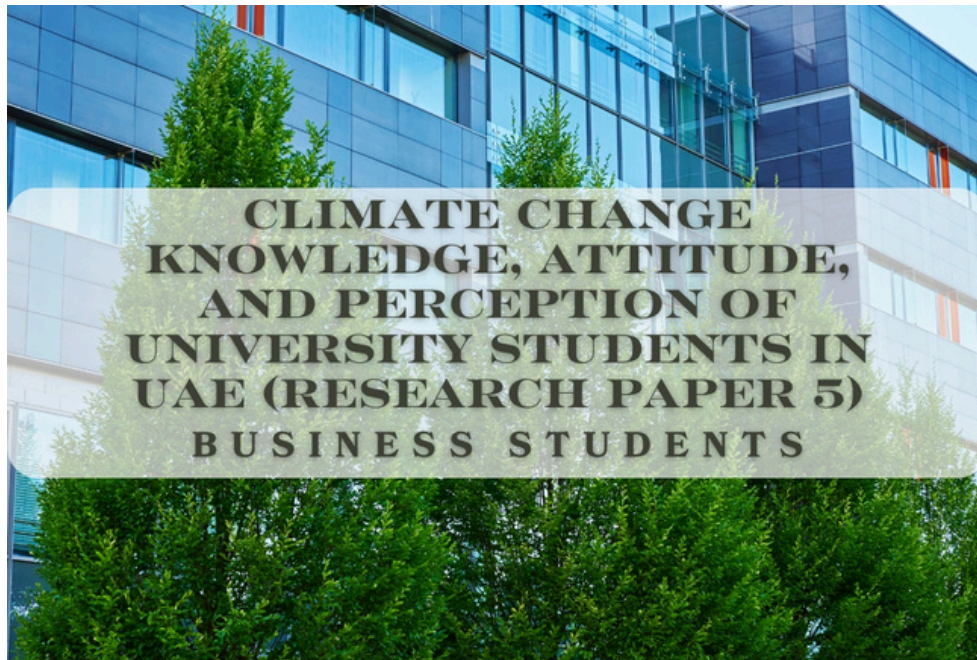
This research paper delves into the multifaceted landscape of climate change awareness among university students, focusing on the intertwined dimensions of knowledge, perception, and attitude. Our research was designed around three main questions that we were to answer if we wanted to draw a reasonable conclusion. The first question discusses what the overall levels of knowledge students possess regarding the topic, the second question analyses the perceptions and attitudes of students regarding the topic, the third explores connections between the three main variables of the research and their respective sources of influence. The importance of these questions lies in their ability to establish a more inclusive perspective for all related parties. It also bridges the gap between pre-existing assumptions and the actual reality. The way we answered the three questions was by, firstly developing four hypotheses that were drawn from the research questions themselves, followed by conducting an online questionnaire featuring a set of tailored questions directed at assessing the demographic, knowledge, perceptions, and attitudes of forty participants. Its main advantage being easily accessible regardless of physical, geographical location or time frame while at the same time insuring the secrecy of participants, making them comfortable to answer questions in a credible manner and without fear of judgment. After which, we underwent a process of converting the data gathered from the responses of participants to a quantitative form which was easier to analyze and interpret using the software tools. And then lastly testing the hypothesis using the variables calculated and collected from the questionnaire.

The result we got from the data analysis process showed that the discrepancies among students in respect to the three spheres of knowledge, perception, and attitude were nonexistent or minimal / negligible at best. Although different in educational background or demographic characteristics, the majority shared almost the same results across the board. Additionally, the tests showed that the majority of respondents showed little interest in the topic of climate change. We were, however, successful at answering the three research questions. We found that the majority of the respondents possessed sufficient levels of knowledge, they also had the correct perceptions, and yet did not showcase the appropriate attitude regarding the topic of climate change.

The main conclusion to draw from this is that university students in the UAE, although knowledgeable, lack motivation and incentive to behave in a more positive manner. This may perhaps be attributed to reasons outside the norm or other unknown variables that were not included in this study. And in the process of raising awareness regarding this particular topic or any other modern-day problems among youth, increasing knowledge is just simply not sufficient enough.

<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/climate-change-knowledge-attitude-and-perception-of-university-students-in-uae-research-paper-4>

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One of the most important global issues of our day is climate change, which calls for widespread knowledge and action. This study examines the connections between university students in the United Arab Emirates (UAE) and their knowledge, attitudes, and perceptions regarding climate change. The study included a sample of 340 pupils from various demographic backgrounds. The results show a strong correlation between these three important factors. Information of climate change showed a weak but positive correlation with attitude, suggesting that attitudes tend to become more favorable as information grows. Knowledge and perception showed a stronger, more positive correlation, highlighting the role that knowledge plays in influencing people's opinions of climate change. Furthermore, a somewhat positive correlation between attitude and perception was found. The study offers insightful information for campaigns aimed at raising public awareness and education about climate change. Integrated climate change education, advocacy groups, required courses on climate change, and customized educational campaigns are among the recommendations. Future research must address the study's weaknesses, especially the sample and data collection techniques. In addition to adding to the current conversation on climate change education, this study emphasizes the importance of knowledge, attitude, and perception in promoting climate change awareness and constructive action among UAE youth, who are crucial players in tackling this global issue.

<https://sustainablecampus.ajman.ac.ae/en/student-research-projects/climate-change-knowledge-attitude-and-perception-of-university-students-in-uae-research-paper-5>

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Understanding climate change among university students is critical in addressing global environmental challenges. This research investigates their knowledge, attitudes, and perceptions towards climate change by employing a range of statistical analyses including Descriptive Analysis, Regression Analysis, Reliability Analysis, and Confirmatory Factor Analysis. The Descriptive Analysis uncovered distinct patterns in participant demographics, highlighting a strong representation of the 18-25 age group, a male majority, and a prevalence of Business Administration majors among participants. Regression analysis revealed a weak positive correlation between a student's knowledge and their year level, explaining 20% of the knowledge variability. Reliability analysis depicted varying strengths in data reliability, with students' perceptions showing the highest reliability, followed by attitudes and knowledge. The Confirmatory Factor Analysis suggested a significant relationship between students' attitudes and perceptions; however, a commendable level of climate change knowledge among UAE university students. The overall findings showed strong evidence supporting the awareness and understanding of climate change among UAE university students. Furthermore, the statistical analyses indicated no significant difference in the average knowledge of male and female students regarding climate change. This comprehensive exploration of climate change understanding among UAE university students offers valuable insights into their knowledge, attitudes, and perceptions. This research highlights the strengths and weaknesses in their comprehension, shedding light on pivotal areas for educational enhancements and awareness initiatives on climate change in the UAE.

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Innovative Green Electric Pots



Air pollution, a global crisis, has reached alarming levels, especially in rapidly developing urban settlements. Despite its rapid modernization, the United Arab Emirates, is grappling with a serious air quality challenge that directly affects public health. PM2.5 levels, a key indicator of air quality, are eight times higher than the WHO's recommended limit, underscoring the urgent need for action. This has severe health consequences, including increased risk of cardiovascular disease, cancer, and chronic illnesses. A survey conducted among university students found that 35% linked air pollution to these health problems.

To address this issue, we propose a revolutionary system of advanced green electric pots to transform urban environments. Strategically placed on university campuses, particularly in outdoor gathering spaces, these pots offer a multi-faceted solution. They integrate air quality monitoring, purification, hydroponics/aeroponics, solar power, and smart connectivity. By utilizing plant species specifically suited to the UAE's climate, these pots create sustainable, self-sustaining ecosystems. These ecosystems will mitigate air pollution, promote urban greening, and enhance the quality of life for city dwellers.

As urbanization and indoor living increase, efficient and sustainable plant care practices become crucial. Traditional methods often fall short in terms of efficiency and resource utilization. These pots offer a promising solution to these challenges, providing a sustainable and effective approach to improving air quality in the UAE.

This project aligns with several United Nations Sustainable Development Goals (SDGs):

- SDG 3: Good Health and Well-being: Ensures healthy lives and access to quality healthcare for sustainable development.
- SDG 11: Sustainable Cities and Communities: Promotes inclusive, safe, and sustainable urban development.
- SDG 13: Climate Action: Combats climate change and its impacts through emission reduction and resilience.
- SDG 17: Partnerships for the Goals: Strengthens global cooperation and resource mobilization to achieve all SDGs.

To know more about this research, click [here](#).

This project has won first place in the Green Campus Competition run by Khalifa University.

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Faculty Scientific Research Paper and Projects

Modifying school courtyard design to optimize thermal conditions and energy consumption in a hot arid climate



This research focuses on schools due to their significant energy consumption. It explores the use of well-designed unshaded courtyards as a passive design strategy in hot climate regions, an area that has received limited attention. The research methodology combines a qualitative approach, case study, and computer simulations through ENVI-met and Integrated Environmental Solutions Virtual Environment (IESve) software. The case study involves an existing school building in the hot arid climate of the United Arab Emirates (UAE). The ENVI-met software evaluates changes in the school's microclimate and building temperature resulting from modifications to the courtyard's design, encompassing five phases. Moreover, the research employs the predicted mean vote (PMV) metric to assess outdoor thermal comfort within school courtyards, correlating with the five design phases. The IESve software assesses the reduction in cooling sensible load achieved through improved courtyard design in the case study. The simulation results demonstrate that the optimal courtyard design lowers the school building's temperature by 1.9°C and 1.7°C on September 21 and March 21, respectively, compared with the base case. Furthermore, it enhances PMV within the courtyard, providing students with a more comfortable outdoor environment during breaks, with maximum PMV reductions of 1.2 and 1.1 on September 21 and March 21. In addition, the optimal courtyard design achieves a significant reduction in cooling sensible load, showing a 19% decrease on September 21 and a 27% decrease on March 21, compared with the basic case. These findings underscore the potential of well-designed courtyards to enhance thermal comfort and energy efficiency in schools within hot arid climates, contributing to sustainable architectural practices.

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Designing climate-adaptive buildings: Impact of courtyard geometry on microclimates in hot, dry environments



Designing climate-adaptive buildings is crucial for mitigating the adverse effects of climate change by enhancing energy efficiency and reducing greenhouse gas emissions. Additionally, such designs improve thermal comfort and resilience in urban environments, particularly in regions with extreme climates, thereby promoting sustainable living conditions. This study aims to mitigate climate change through strategic urban and building design, focusing on the impact of building geometry and courtyard configurations on enhancing microclimates and thermal comfort in the UAE's hot arid climate. Utilizing ENVI-met software for qualitative analysis, the research examines design modifications in a school building's layout and courtyards. The analysis and findings reveal that strategic alterations can reduce outdoor air temperatures by up to 1.45°C and average building temperatures by approximately 1.89°C. Additionally, these modifications significantly improve thermal comfort perceptions on the PMV scale. The findings underscore the potential of architectural design to contribute to climate change mitigation efforts, highlighting the importance of thoughtful building and courtyard designs in promoting sustainable architecture and urban planning. This study offers novel insights into the role of design in enhancing thermal environments, providing a practical approach for developing climate-adaptive buildings in hot, dry environments.

To access the full paper click [here](#)

Impact of courtyard orientation on thermal performance of school buildings' temperature



The focus on green efficient schools is increasing globally. Both private and public-school buildings in the UAE are considered high energy consumers, using significant amounts of energy to maintain a comfortable thermal environment for students. Unfortunately, the designs of these schools have overlooked traditional passive design solutions such as courtyard design and orientation, which can improve internal thermal conditions while minimizing energy consumption. Therefore, this research aims to examine and emphasize the thermal impact of courtyard design and orientation in five existing public schools, with the goal of incorporating these considerations into future green school designs. The research utilized a qualitative approach, employing ENVI-met software to analyze the thermal effects of the schools' orientations. The findings indicated that the case studies exhibited varying temperatures based on the orientation and configuration of their courtyards. Furthermore, the research identified the optimal school building courtyard, which belonged to the UPA-fin school. This design featured north-facing, semi-opened courtyard that blocked hot winds, with rectangular shape oriented east-west, and specific proportions for courtyard area to plot area 26%, and to building area 40%. Compared to the poorest school courtyard design KAT, UPA-fin recorded temperature reductions of 1.7 °C and 1.8 °C on 21st September and March respectively.

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Optimizing educational environments: microclimate analysis and energy efficiency through courtyard orientation in UAE schools



Sustainable school design is becoming increasingly important worldwide, particularly in the UAE, where schools are significant energy consumers. This study explores the impact of courtyard orientation on microclimate and energy consumption in UAE schools, utilizing a standardized template applied across 70 existing schools. By employing advanced simulation tools, ENVI-met and IES-ve software, the research provides a comprehensive analysis of air temperature and energy use related to different courtyard orientations, specifically on key dates of September 21st and March 21st, representing seasonal variations. The results indicate that North-facing courtyards consistently provide cooler microclimates compared to other orientations. Specifically, North-facing courtyards showed temperature reductions of 1.31°C in September and 1.9°C in March compared to the least favorable orientations. This orientation recorded the lowest average mass temperatures of 29.36°C in September and 25.13°C in March, surpassing the West-facing orientation by 0.39°C and 0.45°C, respectively. The primary factor for this improvement is the reduced solar radiation exposure on East-West aligned courtyards, which significantly lowers the heat gain. Additionally, the study assessed Physiologically Equivalent Temperature (PET) readings and cooling demands, both of which were found to be lower in North-facing courtyards. Cooling load reductions varied between 1% and 4%, depending on the day, further emphasizing the efficiency of this orientation. These findings suggest that strategic courtyard orientation is a critical design consideration for enhancing thermal comfort and energy efficiency in school buildings. The implications of this research are significant for sustainable design and construction practices. By highlighting the benefits of optimal courtyard orientation, this study offers practical solutions for reducing energy consumption and improving the indoor and outdoor thermal environments of schools. These insights contribute to the broader goal of developing greener, more sustainable educational facilities, particularly in hot climates like the UAE. This research not only informs architects and urban planners but also supports policymakers in implementing effective sustainability strategies in the educational sector.

To access the full paper click [here](#)



In hot regions, high street temperatures can be a significant impediment for pedestrians. It can also negatively impact the urban heat island and increase the energy required for cooling. Street shading can assist in mitigating these problems. This research examines the effect of extended building projections beyond the building plot and over the pavement on street shading and the resultant thermal conditions in a hot, arid urban environment employing the ENVI-met simulation tool. Several projection configurations were analyzed in a Dubai mid-rise residential district. Projections extended beyond the real estate plot boundaries but not the walking pavement, to a maximum of 6 m. Two streets were analyzed within the selected neighborhood: a side street 10 m wide, building-to-building, and a main street 56 m wide. The simulations showed a direct correlation between configurations of larger building projections with improvements in outdoor air temperature, both ambient and radiant, and thermal comfort. The average temperature for the entire block dropped almost two degrees from 41.0 C° to 39.1 C°. Significantly, the radiant temperature decreased significantly from 63 C° to 57 C°. The PMV, according to Envi-met's scale, remained out of the comfort zone but still showed a significant improvement from 7.2 to 6.5. These results demonstrate that well-designed building projections can effectively reduce high temperatures, improve livability, and assist in mitigating the urban heat island effect of mid-rise urban sectors in hot regions.

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The Bright Revolution: Accelerating Adoption of Solar Energy in India's Dynamic Landscape

The Bright Revolution: Accelerating Adoption of Solar Energy in India's Dynamic Landscape

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Corrections

Author

Listed:

- Udit Chawla
(Department of Business Administration, University of Engineering and Management, Kolkata, India)
- Rajesh Mohnot
(College of Business Administration, Ajman University, Ajman, United Arab Emirates)
- Akinola Fadahunsi
(College of Business Administration, Ajman University, Ajman, United Arab Emirates)
- Devika Mulchandani
(The Calcutta Anglo Gujarati College, Kolkata, India)

Registered:

This research paper delves into the global shift towards sustainable energy, focusing on the substantial energy consumption and greenhouse gas emissions of the agricultural sector. Emphasizing the need for cleaner energy sources, particularly solar technology, the study scrutinizes the cases of India to unravel the complexities influencing the adoption of solar technology in diverse socio-economic landscapes. The paper aims to contribute to the ongoing conversation about energy transition, providing a nuanced understanding of challenges and opportunities associated with widespread solar technology deployment. Focusing on solar technology as a transformative solution, the paper explores adoption and integration challenges, considering India as a case study due to its abundant solar resources. The research examines technological, economic, social, and institutional forces to illuminate the potential of solar technology in shaping sustainable and inclusive energy landscapes. The paper underscores the importance of community support for renewable energy projects and addresses material and attitudinal influences. Geographical location, government policies, and awareness campaigns are identified as critical elements for successful solar technology integration.

To access the full paper click [here](#)

Structural, Optical, and Photocatalytic Characterization of Al-Doped ZnO Nanostructures Synthesized via Laser-Assisted Chemical Bath Technique under Blue Laser Irradiation: A Novel Approach



Samer H. Zyoud ✉, Bayan M. Al Radi, Bashayer M. Al Maamari, Mohamed Nasor, H. Y. Zahran, I. S. Yahia, Taimoor Ahmad, Sohaib N. Khan, Ahed H. Zyoud, Moyad Shahwan, Nageeb Hassan, Akram Ashames, Malek G. Daher, Ghaseb N. Makhadmeh, Naser Qamhieh, Ammar Abdulrahman Jairoun & Mohamed Sh. Abdel-wahab

Droughts pose a severe threat to India's predominantly rain-fed agriculture, affecting food security and livelihoods. Accurate spatio-temporal drought forecasting is critical for proactive management. This study reviews and advances deep learning (DL) approaches for agricultural drought prediction in India's rain-fed regions. We leverage high-resolution climate data (e.g., IMD's gridded rainfall, NASA satellites, soil moisture datasets) and drought indices (SPI, SPEI, PDSI, NDVI/VCI) as inputs. We implement and compare several DL architectures: recurrent neural networks (LSTM, Bi-LSTM), convolutional recurrent models (CNN-LSTM, ConvLSTM), transformer-based models (FourCastNet, EarthFormer), and graph neural networks (GNN-LSTM with attention). Experimental setup includes data preprocessing (e.g. bias correction), training on historical drought indices, and evaluation with metrics (RMSE, MAE, R^2 , accuracy). Our results show that spatio-temporal models (especially transformer and graph-based architectures) outperform simpler models in multi-month forecasts. For example, a GNN-LSTM model yields $RMSE \approx 0.033$ on Jaisalmer drought data, significantly lower than CNN-LSTM or ANN baselines. Visualizations (maps, graphs) illustrate model predictions across Indian regions. We discuss model strengths and limitations, highlight challenges in data-scarce areas, and outline future work (e.g. transfer learning, hybrid physical-data approaches). This study underscores the promise of DL for operational drought early-warning in India's vulnerable rain-fed zones.

The project explored the synthesis of aluminum-doped zinc oxide nanostructures using the laser-assisted chemical bath technique. The comprehensive characterization of these nanostructures revealed superior structural and optical properties, as well as enhanced photocatalytic activity. These advancements have implications for SDG 7: Affordable and Clean Energy, SDG 13: Climate Action and SDG 6 (Clean Water and Sanitation), as they pave the way for more efficient energy solutions and environmental remediation technologies.

This study used laser-assisted chemical bath synthesis (LACBS) as a simple, catalyst-free hydrothermal approach to synthesize pure and Al-doped ZnO nanostructures. Under the influence of a blue laser, the photocatalytic degradation of methylene blue has been studied (444.5 nm of wavelength and 8000 lx of light intensity). For the first time, LACBS produced numerous doping concentrations (2, 4, and 6%) using a continuous blue laser (power is 7 W and wavelength is 444.5 nm). X-ray diffraction (XRD), scanning electron microscopy (FE-SEM), and UV–vis spectrophotometry were used to verify the structural and optical properties of the prepared nanostructures. It has been demonstrated that ZnO:Al (6%) nanosheets have a significant role in the rapid photodegradation caused by blue laser irradiation. The efficiency for methylene blue degradation varies from 85.9, 86.3, and 99.4 to 99.7% for the pure and ZnO:Al (2, 4, and 6%), respectively. This improved photocatalytic activity is attributed to the increased catalytic activity and surface area of Al-doped ZnO. Using UV–visible spectroscopy, the photocatalytic efficiency was determined from the absorption spectra. The photocatalytic activity is increased due to a combination of the Al-plasmonic effect and ZnO surface imperfections that enable the separation of photogenerated electron–hole pairs and shift the absorption edge of the hybrid nanostructure toward the visible spectrum region. Effective visible light absorption and improved dye degradation efficiency are caused by band-edge tuning in ZnO:Al nanostructured.

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Contact

Ajman University
Office of Sustainability
Ajman- United Arab Emirates

<https://sustainablecampus.ajman.ac.ae/en>
sustainability@ajman.ac.ae
[@au4sustainability](#)